

The Amazing Word Processor For The Apple Macintosh





This manual was written and produced using Nisus® 3.0 on the Macintosh® IIci with 8 Mb of memory and printed on the LaserWriter® IINTX. The screen shots were taken using Exposure™ and edited using SuperPaint™ 2.

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#### **ACKNOWLEDGMENTS**

The product you have purchased is the result of a concerted effort by a small group of dedicated people who believe that there is a better way to build a word processing program and despite all odds are prepared to give what it takes to produce, release and support it.

Over the years many people have contributed to the development of Nisus. Some of them came, stayed some time and left. Others have remained through the present day. As the program grows and matures, it reflects more and more efforts of the people presently working rather than those who worked in the past. Nonetheless versions 2 and 3 of Nisus are based on version 1, so I wish to acknowledge the contribution of those who made version 1 possible, although they are no longer part of Paragon. These were: Amy Barnes, Chris Borton, Steven Brooks, Tom Braski, Paul Bressler, Brent Foust, Samir Khayat, Eric Krugler, Chris Krummell, Michael Ogawa, Chris Page, Cris Rys and Mike Scanlin.

Version 3 release of Nisus comes about one year after the release of version 2. It builds on the features of version 2 and includes extensive revisions and improvements. The changes and additions made have almost doubled its finished size.

The major portion of all Nisus versions, additions and improvements were programed by Victor Romano who, as always, remains tireless in his pursuit of perfection. The menu key assignment extensions, the import of Microsoft Word 4 files, the programming dialect, and the extensive new macros and our own testing "Monkey", owe their existence to Jon Matousek who also wrote the Programming Dialect documentation. The saving in Microsoft Word format was programmed by Jim Bates who at the same time took care of technical support, bug tracking, and testing. Some parts of the graphics enhancements were programmed by Rodney Sitton. Design and editing of some of the graphic icons was done by Raquel Romano who also prepared the Menu Reference Guide, the Quick Reference pamphlet, and helped with some dialog design and with the final testing. Production and fulfillment was coordinated by Jolanta Lewak.

The development and release of this major upgrade is the result of very hard work by every member of the Paragon Team. It is typical of a major product, like Nisus, that every aspect of the development and finishing requires inordinate effort from everyone involved. Programming each new feature involves careful consideration of the effect it will have as it is used with other existing features. As more features are added testing and programming become much more complicated. Documentation requires constant updating as the interfaces are fine tuned. The sheer volume of documentation becomes overwhelming. In order to make sure that this version of Nisus gets sufficient testing on very large documents, we insisted that it be used in preparing the manual. This involves the writing, editing and printing of a Nisus document which occupies a total of 3,390K of disk space! (We used a Macintosh IIci with 8 Mb of memory.) Using the Nisus manual as testing grounds for the program makes the process even more difficult, but it gives us and you our customer, the assurance that we have a solid product capable and proficient at such a large task.

The manual was almost completely re-written with the addition of several tutorials. Mark Hurvitz, who after more than a year in technical support knew exactly what to do about the manual, did an excellent job. In order to make the deadline for this release he worked many long days including some round the clock. He was assisted in editing the manual by almost all of us, but particularly by Jolanta Lewak, and Edwina Riblet who did this in addition to her usual duties in marketing, public relations and advertising, and in the final stages by Ryland Madison, a student volunteer.

The continuation of this project depends on the sales of our existing products. Our customers, distributors, and all of us value the hard work and dedication of Zosia Lewak which makes this possible.

We are very grateful to our beta testers who, despite only a short testing time, did an excellent job. To their persistence and careful reporting we owe the high quality of Nisus.

Finally I wish to thank all those customers who wrote, called, and FAXed their comments, suggestions and words of encouragement. Without their caring responses Nisus would not be the product that it is. We ask you, after you have had some experience with Nisus, to write to us about your impressions and suggestions. We promise to listen and respond by continuing to improve Nisus.

The process of improving an already very powerful word processor becomes more difficult as both the program and the manual grow in size. There is always the possibility of slowing its performance. We have taken great pains not just to add powerful features and maintain the speed of Nisus but also to improve its performance compared to previous versions.

Since its first release Nisus has become international. There is a Korean version shipped with every Macintosh in Korea. French and German versions have been released. It is widely distributed in Australia. In Great Britain it won the 1989 Best Word Processor award. Hebrew and Japanese versions are being prepared.

If Nisus is your first word processor, you will probably initially use very few of the advanced features. We know from experience, however, that after you have become accustomed to the basic features of Nisus, you will find it productive and fun to explore it further. You will find Nisus so rich in possibilities that you should expect your exploration to last a long time.

You will find it rewarding to think of new ways of using the features of Nisus in helping you with both your daily chores as well as your creative endeavors. When you do find a new way of using a feature, we invite you to share it with us, so that we, in turn, can share it with others.

Jerzy Lewak
Project Leader and President
Paragon Concepts, Inc.
Solana Beach California, August 1990

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XIV

# 1 Welcome to Nisus

# Introduction: The Nī'sus Way

Nisus [L., noun of action f. niti, to strive, endeavor.] Effort, endeavor.

Now that you have Nisus, you can be confident of producing a well-designed, accurate document. With Nisus you become part of a powerful communications partnership—your job is to provide the creative input while Nisus quickly handles the time-consuming details.

Nisus can make anyone who has a need to write into a word-processing expert, even without complicated training. With virtually unlimited undos and redos, for example, you can polish your document to perfection. Multiple clipboards enable you to save (and edit) different portions of a document until you are ready to put them together. Index and table of contents are easily generated, and Nisus also provides character, word count and readability information.

Form follows function. In a word processor, preparing the text is function. Beyond its powerful text editing abilities, Nisus offers the user versatile resources to shape the visual form of the final text. Nisus files are saved as text. This means that any word processor that can read text files (and that means virtually any word processor) can read files created with Nisus. This is significant because we at Paragon created Nisus as a tool to enable increased communication.

Perhaps the most impressive feature in Nisus is the incredible search and replace facility. Not only can you find and replace specific words and phrases, but you can search for patterns of characters, even if you're not precisely sure what you're seeking. And you can look through all your files, whether they're open or not.

Nisus easily integrates graphics and text by including both text editing and graphics tools. You can crew or paste a picture over the text, then with a single click show the words through the picture. Another click will wrap the words around it. Picture outlines can be filled with any one of many available patterns or used creatively with other pictures. As with text, you can undo one or all previous commands.

If you use certain words or phrases frequently, you can create a glossary replacing a simple abbreviation with the full word. Even more convenient, glossary entries can be converted to their definitions with a keystroke, or entered directly.

Add to all of this the most sophisticated thesaurus and spelling checker available, an editable page preview that updates instantly, and a facility for writing and recording your own macros.

Impressed? You should be, but don't let all that Nisus has to offer intimidate you. Remember, Nisus was written with only the Macintosh in mind. Though packed with powerful features, Nisus is for everyone from novice to professional.

There is no doubt that Nisus is "the amazing word processor for the Macintosh." But as good as Nisus is, Paragon Concepts continues to work to make it even better. Updates will be available to registered owners, so be sure to send in your registration card.

# **Using the Manual**

The manual is organized so that you can read the material straight through, in the order that it is presented. It is also meant to be used for reference.

The manual observes the following conventions: the basic text of the manual is in this typeface. When the manual refers to a command in the menus, or in a dialog box, or quotes from a text in a dialog box,

2 CHAPTER ONE

that text is printed in the font as it appears on the screen (**Chicago**). When the manual refers to an item elsewhere in the manual that has a title, or is the label for an illustration you will see it, as it appears in the manual, for example: "see Figure 3-1" or "for more information see the section on The Nisus Menus, page 9."

As you read, you will notice some paragraphs preceded by D. This indicates information of particular importance or shortcut methods of doing things.

Most often, Nisus shortcuts involve using Command key (%) equivalents. To use a Command key equivalent, first press the Command key, and while continuing to hold it down, press whatever other key or keys are required. For example, pressing Command and then the letter X will cut a selected text. Look for Command key shortcuts in text and figures throughout the manual. On the screen, you can see Command key equivalents in some menus. You can also see them in dialogs when you press the Command key.

Logically related tasks are grouped into single chapters. Topics may be mentioned in more than one place, where appropriate, but they are explained in depth only once. When using the manual for reference, consult the Table of Contents to find general topics, but refer to the Index to locate specific words or terms.

If you are new to word processing, the tutorial will be of great value to you. In any case, it will introduce you to the Nisus way of doing things.

Nisus faithfully follows the Macintosh User Interface. Though Nisus is among the most powerful word processors on the market, it has a very gentle learning curve. The menu commands are placed where one might expect them to be. Skills learned in editing the main document can be transferred to another part of the program (headers, footers and footnotes as well as the glossary and macros).

Any action that can be accomplished in the main text editing window can probably be accomplished in any other window: Copy, Cut, Paste (from any window to any other—even dialog boxes [where you can even use your Command keys]), insertion point control from

WELCOME TO NISUS 3

the keyboard, double/triple-clicking, zooming windows, reverse scrolling, change Font, Size and Style, apply line numbers (even in the Catalog and Find/Replace dialog window).

It is possible to customize Nisus, but not at the expense of consistency of use over different computers. The menu commands always appear where they were when shipped. Thus, mouse access to them is the same on any Macintosh. And in Nisus, you can set as many personalized menu key equivalents as you wish.

We are concerned about you and your work. Nisus is very forgiving. Virtually any action can be undone, and undone. Various portions of your work can be temporarily stored on any of the ten editable clipboards. Nisus enables you to save your work automatically, with backup copies even saved to a second disk drive.

# **Technical Support**

If you encounter problems trying to get Nisus to do what you need to accomplish, the solution is probably in the Manual or in the on-line **Help...** facility under the menu. However, if you still have difficulties, check Troubleshooting page 465. Then, if the problem persists, call Paragon Concepts Technical Support.

Make your phone call when you are near your Macintosh and Nisus is running. Please have as much information as possible about the problem you are experiencing before you call, including;

- The kind of Macintosh you are using (Mac+, SE, etc.)
- Other hardware you are using if applicable (monitors, drives, printers, etc.)
- How many megabytes of memory you have in your system
- What version of Nisus you are using (which appears in the About Nisus ... dialog in the Apple freenu)
- What version of the Macintosh System Software you are using (which appears in the About the Finder... dialog in the Apple free menu when you are running the Finder)
- Whether or not you are working under MultiFinder, and if so, what partition you have assigned to Nisus (under the

Finder, click on the Nisus application icon and choose **Get** Info... from the Apple **6** menu)

- Any cdev's (Control Panel Devices) and/or INIT's (Initialization programs) you may have in your system.
- Try to have a phone by your Macintosh and have Nisus running when you call. It is much easier for the Technical Support staff of Paragon to help you if they can "walk through" the process with you.

The Technical Support staff is always glad to help. Technical Support can be reached at 1 (800) 922-2993. We created Nisus so that you could do your writing more easily. We want to assure that all your writing Nisus are a pleasure with Nisus.

WELCOME TO NISUS 5



# Getting Started

# **Package Contents**

When you open the Nisus box you should find the following:

- Program Disk (containing the Nisus Application and the Read Me file)
- Spelling Checker/Thesaurus Disk
- Other Files Disk (containing the Programming Dialect, Tutorial Files, Help file, and Stationery Files)
- Registration and Warranty Card
- Nisus Manual
- · Quick Reference Guide
- Nisus Menu Reference pamphlet
- Nisus Macro Language: Programming Dialect pamphlet

See your dealer immediately if any item is missing.

Complete and mail the registration card. Only registered owners will receive technical support and be notified of updates. For your convenience, Nisus is not copy protected.

# **System Requirements**

For optimum convenience, you should have at least a Macintosh Plus (1 MByte RAM) with a hard drive and one disk drive. If you have a Macintosh Plus (or a newer system) without a hard drive you must have two 800K-disk drives. Nisus can be used on a Macintosh XL or Lisa with a hard drive, running MacWorks<sup>TM</sup> Plus and modified

to use one double-sided drive and a hard drive. You must use System Software version 5.0 (System file 4.2 and Finder file 6.0) or greater. The latest version appropriate for your Macintosh configuration is recommended.

# What You Are Expected to Know...

It is assumed that you are familiar with all Macintosh operations described in the user manuals supplied with your computer.

## Installation

## Hard Disk Installation

If you are using a Hard Disk, copy all the files from the Nisus Disks to a single folder on your hard disk.

### Disk Drive Installation

Using Nisus with two 800K-drives is not recommended. The program will work independently, but using the Spelling Checker or Thesaurus will require extensive disk swapping.

Keep your documents on the copied Program disk if there is room. You may also keep them on a separate disk. Nisus will only ask for the disk when you save the document, because documents are kept entirely in memory until they are saved.

- The original Nisus disks should be stored in a safe place as your backup, in case your working copies are damaged. You will need the unchanged original to take advantage of any future upgrades.
- Know what kind of printer you are using. There are two basic kinds of printers: QuickDraw and PostScript. The Apple ImageWriter printers are QuickDraw printers while many Apple LaserWriter printers are PostScript printers. If you are using a PostScript printer

8 CHAPTER TWO

you will want to set your Nisus New File (see page 65) with **Display As PostScript®** selected. This will assure that what you see on screen on the graphics sheets is what you will be able to print on your printer.

# **Launching Nisus**

Getting started in Nisus is just like launching any other Macintosh application. Locate the folder containing the Nisus application or any Nisus document. Double-click on the Nisus icon or on any Nisus document. If you want all the advanced features of Nisus to be available, both the application and the Programming Dialect) need to a be in the same folder.

## The Nisus Menus

**♦** File Edit Tools Format Font Size Style 9:38:30 Am

Figure 2-1 The Nisus Menu Bar

This is a brief overview of the Nisus menus and many of their menu items. It will help you gain a general understanding of most of the features as you pull down the menus for the first time. The primary menus in Nisus are illustrated in Figure 2-1. For more detailed information, consult **Help...** under the menu, the Nisus Menu Reference pamphlet, as well as the table of contents, index and glossary.

It is a convention of Macintosh menu commands to have an ellipsis ("...") follow those commands that bring up a dialog of some kind but don't directly affect your document.

Many menu commands are modified when you choose that command with a "modifier" key pressed. This has been a feature in Nisus since its first release. Early users of Nisus already know that you can append to the clipboard by pressing the Shift key while choosing Copy from the Edit menu. Now, when you press one or more of the modifier

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keys as you choose a menu item, the original command will be changed to read what the command accomplishes with that modifier key pressed, as illustrated in Figure 2-2.

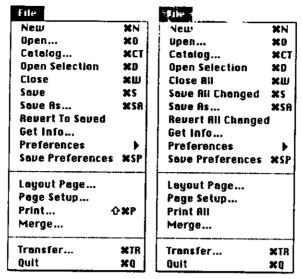


Figure 2-2 The File menu, and with the Option key pressed

The modifier keys are:

- Shift
- Option
- Command

You can see screen shots of the menus in all of their modifications as well as simple explanations of what each command accomplishes in the Nisus Menu Reference pamphlet.

It is possible to use many of your menu commands when various dialogs are open.

We have tried to keep hierarchical menus to a minimum, and then, only for less utilized commands (and these can all be accessed by way of Nisus' Menu Keys facility).

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#### The **4** Menu

The Apple menu primarily provides you with desk accessories while you are using Nisus. You can choose items in the Apple menu from your keyboard by assigning command key equivalents using Menu Keys. It also accesses:

• Rbout Nisus@... gives you the version of Nisus.

• **Help...** is available here to give you initial assistance. To use it, Nisus must be able to find the Help files which should be in the same folder as the program or in the System Folder. If not, you will be asked for their location.

#### The File Menu

The File menu provides you with commands to Open..., Save, and Close your documents.

- Catalog... brings to the front the Catalog window which
  can be used to open documents, load a Glossary, Macro, or
  dictionaries, and add or remove files from your search list.
  Note that while the Catalog window is in front, a Catalog
  menu appears at the right of the menu bar.
- Get Info... brings to the front an information window which gives statistics such as word and character count and readability indices. The current document is evaluated individually and totals for all open documents are reported together.
- Preferences gives you options to control the way Nisus works.
- Layout Page... allows you set the margins and view your page as it will look when printed.
- Page Setup... allows you to customize and set options for printing.
- Merge... allows you to merge documents, usually a mailing list and a form letter.
- Quit allows you to close Nisus when you have finished working.

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#### The Edit Menu

The **Edit** menu provides you with commands to **Copy**, **Cut**, **Paste**, and **Clear** (remove without appending to the clipboard) text or graphics. You will find commands for many editing features:

- Select BII
- UPPERCASE, lowercase, Capitalize
- Move Left, Move Right, Sort 9, Break Lines, Zap Gremlins

Ten editable Clipboards are also located here.

#### The Tools Menu

The **Tools** menu gives access to search and replace functions. When **Find/Replace** is chosen a new **Search Method** menu appears at the right of the menu bar. Both basic and very complex searches can be made using this menu.

The **Tools** menu also contains commands which enable you to **Jump To** any place in the text and to **Mark Text....** As you set markers, their names are appended to the **Jump To** submenu.

The **Tools** menu gives you access to most of the advanced features of Nisus.

- Spelling..., Thesaurus... and Hyphenate
- Jump To
- You can Cross Reference... various portions of your text and Update X-Reference if your document changes.
- The Place Page... and Place New Page commands allow you to place an updateable image of any other file into your document.
- You can also create a user Glossary for writing abbreviations that can be expanded instantly or when your document is complete.

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- The Edit Tools submenu permits synchronous scrolling, comparison of two files and checking of parentheses as well as the RSCII Table....
- The **Display** submenu contains various options you can choose to display in your document. **Space Tab & 9** shows various symbols in your document that represent tabs, carriage returns, line feeds and forced page breaks. **Text Hilites** produces dotted boxes around variables, indexed words and words added to the Table of Contents. **Graphic Anchors** show the point in your document to which any graphic on the graphic layer is attached.
- Windows provides options for handling multiple windows.
   This menu can be pulled down from the title bar of your document window by pressing the Option or Command key as you click on it.
- Macros contains all the tools for working with macros. If a
  macro file is loaded, its macros are listed below the dotted
  line in the Macros submenu.

#### The Format Menu

In the **Format** menu you can select from a variety of commands that shape the appearance of your document. Among these commands are:

- Insert Ruler
- · Insert Header, Insert Footer
- Insert Footnote
- Insert Page Break
- Keep On Same Page
- Insert Date, Insert Time, Insert Doc Name and Insert Page # as well as Update Time & Date variables
- Mark Index and Mark Contents.

# The Font, Size, and Style Menus

The Font, Size, and Style menus allow you to change the appearance of your text.

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The **Style** menu gives you access to the **Befine Style...** feature. As you create user styles, they are appended to the **Style** menu.

Note the special commands Any Font, Any Size, + Any Styles, Any Color and Any More User Styles. They are not available when the top window is a document window. These are used only for describing the attributes of searched text in the Find/Replace dialog or in text in the Macros and Glossary windows.

### **Additional Menus**

When needed, additional menus appear to the right of the Style menu. Each of these menus contain commands that will help in performing specific tasks. These additional menus are: Catalog, Layout, Search Method, Graphics, Header/Footer and Footnotes.

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# 3 Tutorial Session 1: Tour the Window

This session of the Tutorial presents an introductory tour of the Catalog and various icons in a Nisus window. You will learn what they are called and what they accomplish. Page numbers (page #) follow those items discussed in the manual.

• Double-click on the Nisus icon . Find the Tutorial folder in the Catalog (page 191) window that appears in the upper right hand corner of your screen behind the blank Untitled-1 document. Select the •Tutorial folder by clicking on it, then click the Open button. Drag your mouse across the two files labeled Window Icons Tour and Window Icons Tutorial 3.0. Click the Open button. Using the Catalog, you can open more than one file at a time as illustrated in Figure 3-1.

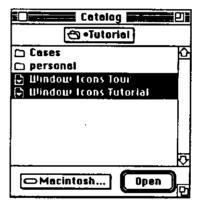


Figure 3-1 Catalog with two files highlighted for opening

The following window, Figure 3-2, will appear as the top window.

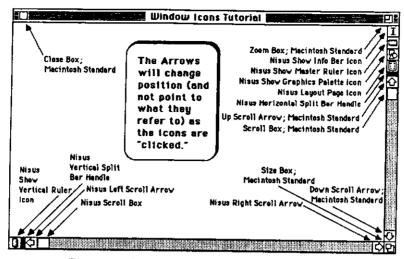


Figure 3-2 The Windows icon Tutorial window

- Click on the Show Info Bar icon I to select it. It will become highlighted I and the Info Bar (page 69)

  \*\*Po/! DI 489K\*\*

  will appear below the window's Title Bar.
- Click on the Show Master Ruler icon to select it. It will become highlighted and the Master Ruler (page 70)



will appear below the Info Bar.

• Click on the Show Graphics Palette icon to select it. It will become highlighted and the Graphics Palette (page 242)



will appear below the Info Bar in place of the Master Ruler.

 Click once again on the Show Graphics Palette icon to cause it to disappear.

- Click on the Show Info Bar icon I to cause it to disappear.
- Click on the Layout Page icon . It will "flash" once and the Layout... window (page 135), shown in Figure 3-3 will open.

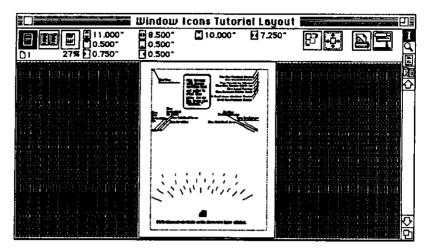
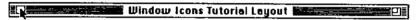


Figure 3-3 The Layout Window

Click on the Close Box



to return to the original window (we will explore this Layout window in a later session of the Tutorial, page 39).

You can view and edit in two portions of your document simultaneously.

 Beneath the Layout Page icon is the Horizontal Split Screen Bar handle (page 472). Drag it down below the rounded rectangle.
 This will split your window into two panes similar to Figure 3-4.

Above the Horizontal Split Screen Bar handle is the Down arrow of the upper pane and beneath the Horizontal Split Screen Bar handle is the Up arrow of the lower pane. At the bottom of the window there is a Down arrow. While the window is split this is the Down arrow for the lower pane.

- In the lower pane of the window, hold the mouse button down on the Down arrow and scroll to the bottom of the page until your window appears as in Figure 3-4.
- Click your insertion point \( \int \) in the sentence in the lower pane.

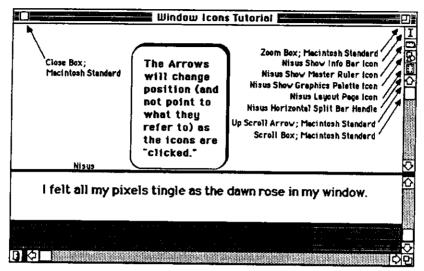


Figure 3-4 Split Window

This is the active pane. Over this pane your insertion point looks like an "I - beam." Over the inactive pane it appears as an arrow (Entering text at the "I - beam" will be discussed in Session 4 of the Tutorial.) The upper pane knows where the insertion point is.

- Click on the Scroll Box in the upper pane. The Scroll Box will "flash" the upper pane will be activated. Press the Enter key; the upper pane automatically scrolls to show the insertion point position.
- Double-click on the Horizontal Split Screen Bar handle to return the window to its original state.

You can make your window almost any size you wish.

• Click on the Size Box in the lower right-hand corner of the window.

 Hold the mouse button down and drag the window up and into the left as illustrated in Figure 3-5, so the edge of the window is inside where the scroll bars were.



Figure 3-5 Using the Size Box A

 A portion of another file's window is visible along the right and bottom edges of your screen as seen in Figure 3-6.



Figure 3-6 Using the Size Box B

• Choose Catalog... from the File menu.

Notice that the Catalog indicates what file is open with a check mark in place of the mini icon.

• Click on the scroll bar at the bottom of the screen.

The file **Window Icons Tour** is now the front window.

 Follow the ten steps indicated in that file for another tour of the window. At step 10, unclick the two highlighted icons, but don't yet close the window.

You may, sometime, need to work in more than one file/window at a time and need to move one window partially off the screen.

- Place your pointer on the Title Bar of the file Window Icons
   Tour and drag it straight down about an inch, so that its vertical
   scroll bar is visible but its Down arrow is hidden.
- Press the Option key while you click on the Up arrow until you reach the bottom of the file. Your window will scroll "backwards" as illustrated in Figure 3-7.

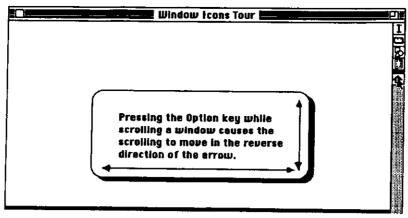


Figure 3-7 Reverse scrolling with the Option key

• Click in the Zoom Box  $\square$  to return the window to its original position.

Suppose you had moved the window off the screen to the right so that the Zoom Box was not visible.

 Double-click the Title Bar to return the window to its original position with the zoom box visible.

The scroll bar at the bottom of the window functions essentially the same as that on the right edge of the window except that its icons move the window horizontally instead of vertically.

Along the left edge of the screen a small sliver of the file **Window** Icons Tutorial is visible.

- Click on that sliver of window to make it the front window.
- Click on the Scroll Box and drag it to the top of the file.
- Click your insertion point at the top of the file.

You can either close the windows individually by clicking their respective Close Boxes or you can close all open windows at once.

Press the Option key and click the Close Box.

This session is now complete.

# Session 2: Manipulating Rulers

This session of the Tutorial presents the basic skills used in manipulating rulers. You will learn how the different icons and menus on the Master Ruler affect your document. Page numbers (page #) follow those items discussed in the manual.

Double-click on the Nisus icon. Find the Tutorial folder in the Catalog window that appears in the upper right hand corner of your screen. Select the •Tutorial folder by clicking on it; then the Open button; then do the same for the folder labeled Cases as illustrated in Figure 3-8.



Figure 3-8 Catalog window with Cases folder open

Click on **Del Mar** then click **Open**. Follow the same procedure with the file labeled **9/13/89**. You will see the window that appears in Figure 3-9.

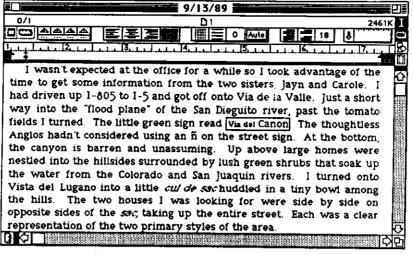


Figure 3-9 An open document window

#### Info Bar (page 69)

Beneath the Title Bar, you can see the Nisus Info Bar. Below that you can see the Master Ruler at the top of the document. At the left edge of the Info Bar is a number "0/1." This number indicates where your Insertion Point happens to be (in this case, it refers to the number of characters into the paragraph by the number of lines from top of the page). As soon as you make a change to a document, the Change Indicator icon of appears to the left of these numbers. It will disappear when you save your file and reappear once a new change occurs. Centered in the Info Bar is the Page Number icon of the As you scroll through the document you will notice the numbers beside it change as the pages flow past. The capital I on the right edge of the window is the Show Info Bar icon. Because the Info Bar is showing, the Show Info Bar icon I is highlighted I.

• Click on the Show Info Bar icon I to make the Info Bar disappear or reappear. Other items can appear on this Info Bar. They are explained further elsewhere in the manual (0490 68). All these icons on the Info Bar are indicator icons which give you information about your document but have no effect on it.

#### Rulers

#### Paragraph Ruler (page 86)

Between the Info Bar and the actual ruler portion of the Master Ruler are a series of other icons. Of the two on the far left only one concerns us at this time: the Show Rulers icon which is presently highlighted. Notice that this icon is subtly, though visibly, different from the Show Master Ruler icon in the Scroll Bar near the upper right hand corner of the window.

#### Line Wrap and First Line Indent (page 87)

- Click on the Show Rulers icon a few times to see how it moves your ruler and document to the left and right hiding, then revealing the Paragraph Ruler icon.
- Leave the Paragraph Ruler icons visible.

From the Master Ruler you can control the paragraph indents by clicking on and dragging the Line Wrap Indicators T and the first line indent/outdent by clicking and dragging the First Line Indent/Outdent icon T. These icons do not indicate the actual margins of your document (they are set in Layout Page...). Rather, they indicate, within those margins, the point at which your lines will wrap.

- Scroll down to the beginning of the next paragraph to notice that
  the same "format" is maintained; the paragraph has the same
  basic shape and appearance as the one above.
- Press the Enter key to return to the position of your Insertion Point.
- Drag the First Line Indent/Outdent icon into the two inch mark to change the depth of the indent.
- Drag the Right Line Wrap Indicator 

  in to the seven inch mark, then drag the Left Line Wrap Indicator 

  in to the three inch mark to change the appearance of the paragraph. If this is your first experience with a computer you will notice that the lines

"wrap" automatically when there is no more space available on any particular line. This is called text wrapping. You press the Return key only to start a new paragraph.

 Scroll down again as illustrated in Figure 3-10 till you see the next paragraph.

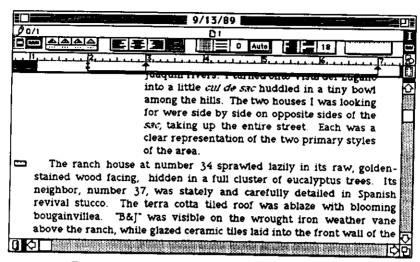


Figure 3-10 Line Wrap and the Protective Ruler

Notice that a new Paragraph Ruler icon has appeared to the left of the margin and that this paragraph maintains the same formatting as before you made any changes. This feature of Nisus is called a Protective Ruler (page 990); it protects succeeding paragraphs from being changed when you alter the format of the paragraph above.

 Press the Enter key once again. (Whenever you press the Enter key the place of your insertion point will immediately be brought into view. "Where was I?" ...press Enter.)

Perhaps you don't like the way these line wraps shape the text.

Move your insertion point up to the Menu Bar, choose Edit and drag down to Undo (it will say Undo Move Margin with a number beside it). Repeat this procedure until you've returned to the original format. (You can go forward again by choosing Redo etc., back and forth, till you are satisfied, or simply change the ruler directly.)

If you want to change the line wrap region for the document.

- Click on the Paragraph Ruler to select it

  . Make changes.
- Drag the First Line Indent/Outdent icon in to the two inch mark to change the depth of the indent.
- Drag the Right Line Wrap Indicator  $\mathcal{L}$  in to the seven inch mark, then drag the Left Line Wrap Indicator  $\mathcal{L}$  in to the three inch mark to change the appearance of the paragraph.

Selecting a Paragraph Ruler will prevent a Protective Ruler from being inserted. All paragraphs governed by the selected ruler, that is, all paragraphs till the next Paragraph Ruler, will be altered accordingly.

 Undo once again so that the Line Wrap Indicators and First Line Indent/Outdent are as they were when you opened the document.

What we have just done regarding the insertion of protective rulers applies to anything you can do to a ruler. Whenever you make a ruler change to a paragraph, whose Paragraph Ruler has not been selected, a Protective Ruler will be inserted. These alterations include changing the line wrap region and first line indent as well as manipulating tabs, line spacing, paragraph spacing, and justification.

#### Tab Stops (page 88)

You can add a variety of tab settings to your document. These are kept in the Tab Wells to the right of the Show Rulers icon 
AAA

Tabs allow you to move your insertion point horizontally into your document to continue typing at a specified point.

- Scroll down to the end of the document. Note that there is a Paragraph Ruler at the beginning of the limerick.
- Place your insertion point in front of the "W" (of With) at the
  beginning of the third line and click the mouse, then press the
  Tab key. Do the same with the next line (in front of the "S" of
  She). Nisus has tab stops built in, set at one half inch intervals
  from the left margin. You can, however, set your tabs to appear
  anywhere in your document.

- Select the Paragraph Ruler at the beginning of the limerick. With your pointer, reach up to the tab well.
- Click on the Left Tab and drag it to the two inch marker on the Master Ruler. The two indented lines will automatically align themselves with the tab marker. Repeat the process and place a second Left Tab on the three inch marker of the Master Ruler. The other triangles (tabs) in the Tab Wells (continuing from left to right) though not demonstrated here, can be used to line up your tabbed text along its center point, its right edge, or a decimal point in a number, respectively.
- Place your insertion point at the beginning of the limerick and drag across it to select its entire text.
- Move your insertion point up to the Menu Bar, choose Edit and drag down to Move Right (page 120). The entire limerick will be moved over to line up with the new tab stops you have inserted when you release the mouse button. The result of this command is illustrated in Figure 3-11.

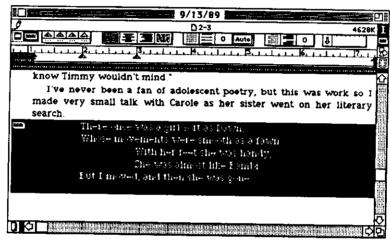


Figure 3-11 Move Right command illustrated

## Justification, Line and Paragraph Spacing (pages

90, 92, and 94)

The rulers also control spacing between lines.

 Click on the Paragraph Ruler so that only it is selected. Click on the Auto icon of the Line Spacing icon of the Master Ruler to see the various options you have for spacing.

You can have the lines spaced automatically Auto. Nisus will maintain a certain minimum line height counted in pixels (points). (Point height is  $\frac{1}{72}$ " on screen; one pixel is the smallest point that can be seen on screen.) "0" means that the minimum space necessary to display the tallest character on a line will be kept; no change will appear until you reach a number higher than the number of points in the font you are using . You can either type a number into the number box or click on the increase or decrease icon until you achieve the desired result (when the line height is as small as it can be, the decrease icon is dotted: [iii]. It is possible to have a fixed line height Fix... Nisus will maintain a set number of points between the bottom of one line and the bottom of the next. Or, you can choose to have Nisus maintain a certain number of lines as spacing Line. In this instance, Nisus measures the line height and automatically keeps that line height or increases or decreases the distance between the bottom of one line and the following by half line intervals. Choose a variety of these options and watch how the choices affect your text. Because each line of the limerick has a return character at its end you can get the same visual result by using the Paragraph Spacing icon The measurement method set in Line Spacing Auto, Fix or Line also applies to Paragraph Spacing.

Click on the Increase and Decrease Paragraph Spacing icons or enter a number into the number box o to see the different options you have for spacing. Choose a variety of them and watch how these choices affect your text.

Paragraph and line spacing offer different results.

- Return your insertion point to the top of the document. You should still have only one Paragraph Ruler at the top of the document controlling a number of paragraphs.
- Select that Paragraph Ruler and then click on the measurement method icon until Line appears.
- Double-click your insertion point in the number box of the Paragraph Spacing icon to select what is there.
- Type the number 2 and press Enter.

Now, as you scroll through the document you will see how the lines are single spaced but there are two spaces between each paragraph (until you reach the next Paragraph Ruler).

- Scroll down to the paragraph that spans pages one and two, beginning: "I haven't spoken with her in ages,..."
- Click on your mouse so that the insertion point is at the beginning of the paragraph.
- Choose Insert Ruler from the Format menu. Notice that the Paragraph Ruler is selected and a Protecting ruler has not been inserted.
- Delete that ruler by simply pressing the Backspace or Delete key.
- Click on the Decrease Paragraph Spacing icon so that it reads
   to see how one paragraph is affected as illustrated in Figure
   3-12.

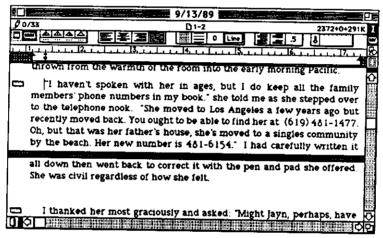


Figure 3-12 Paragraph Spacing

- Scroll the window of file 9/13/89 up to the top and place the insertion point at the beginning of the document.
- Choose **Save** from the **File** menu and then click the Close Box

This session is now complete.

## Session 3: Graphics

You can easily add graphics to your documents without leaving Nisus. This session of the Tutorial presents the basic skills used in creating and manipulating graphics. You will learn how the different icons on the Graphics Palette and the **Graphics** menu affect your document. Page numbers (page 10) follow those items discussed in the manual. You may continue from where you left off (before closing the file) in Session 2 of the Tutorial or begin a new session of working with Nisus.

#### Graphics Sheets (page 233)

- Open the file labeled 9/13/89.
- Scroll down to the paragraph beginning: "Jayn was home and invited us over." and place your insertion point following the words "Saltilo pavers."
- Click on the Show Graphics Palette icon (under the Master Ruler icon) or choose **Graphics Palette** from the **Display** submenu of the **Tools** menu. When the Graphics Palette appears the Show Graphics Palette icon will be highlighted and you will see a wide variety of tools and patterns with which you can draw graphics. Also, on the right hand edge of the Menu Bar the **Graphics** menu will appear (page 271).
- Click on the Show Vertical Ruler icon in the lower left hand corner of the window. It will be highlighted and the Vertical Ruler will appear along the left edge of your window. On the graphics sheets your pointer's position will always be shown in the rulers.
- Click on the Rectangle drawing tool icon in the lower left corner of the Graphics Palette to select it; it will become highlighted.

•	Press the Shift key to constrain the rectangle to a square while drawing.
•	Anywhere in the window, click on the mouse button to draw a square of approximately one half inch on a side. Notice how the text automatically "wraps," or makes room to allow the graphic
	to fit into the space because Text Wrap On (near the
	center of the Graphics Palette) is selected (page 258).
•	Click on the icon to show the pull down menu and choose Text
	Wrap Off . Notice that the icon changes on the Graphics
	Palette and that the text now flows, invisible, behind the graphic.
•	Click on the Overlay Attributes menu (page 262) (which is in its
	Opaque mode) and choose Transparent . You
	will see the text from the background flow through the graphic.
	Return to the <b>Opaque</b> mode.
You can fill the box with a pattern to make it appear more like a	
	ving tile. The Pen/Fill Pattern Selector indicates that you
have drawn a graphic with a black border and a white center (page 269).	
•	Click on a variety of the patterns in the Pattern Palette
	to see how the graphic can be changed.
•	Click on the Palette Scrolling icon to scroll through the patterns
	till you find patterns with less than 50% gray.
•	Click on one of those so that the fill pattern can be seen in the Selector box and your graphic.
•	Click on the Text tool <b>T</b> to select it; the icon will become
	highlighted Th.
	- Building
•	Click on the white fill icon N
•	Click anywhere in the window. A dotted box will appear
	in which you can type.

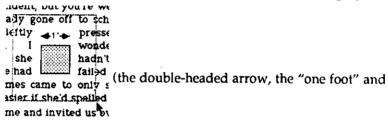
• Type "1" (one foot, i.e. the numeral one and an apostrophe).

- Choose 9 from the \$ize menu.
- Click on the Bidirectional Arrow tool 5 to select it; the icon will become highlighted 6.
- Click on the pixel line thickness icon to select the appropriate line weight . That weight indicator will show in the center of the Pen Size Selector icon (page266).
- Click the mouse button and drag the mouse to draw an arrow just above and the entire length of the square.
- Click on the "1'" (one foot) again to select it, then on the small black square in the lower right corner of the invisible box that surrounds it 1'. Drag the square toward the number so

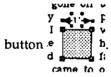
that only the digit and the apostrophe show 1, then drag the graphic and center it over the arrow.

The number is behind the arrow and being covered by it.

- Choose Bring To Front from the Graphics menu.
- · Drag your Selection Tool diagonally across the three graphics



the "tile") so they are all selected when you release the mouse



Choose Group from the Graphics menu (page 272).

You now have a complex graphic. It can be left on the graphics sheets for the text to flow around or you can place it on the text layer as a character graphic.

## Character Graphic (page 236)

- · Choose Cut from the Edit menu.
- Choose Master Ruler from the Display submenu of the Tools menu or click on the Show Master Ruler icon
- Choose Paste from the Edit menu. The graphic is now a Character Graphic and will follow along in the line of type as if it were any other character. The item can still be manipulated: it can be centered on the line or resized.
- Click on the graphic once to select it, and then drag the graphic so that it is centered in the line as illustrated in Figure 3-13.

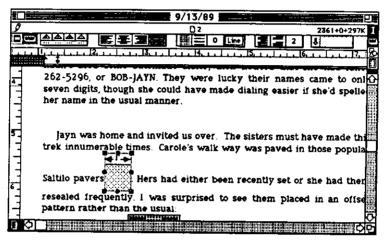


Figure 3-13 A Character Graphic

Nisus graphics can be very complex. The character graphic at the end of the paragraph is made up of 49 separate components. To examine it on your own, double-click on it. The window **Graphic for** '9/13/89' will open allowing you to edit the graphic in place.

- Click once on the graphic to select it.
- Choose Ungroup from the Graphics menu (the reverse process of what we did with the single tile). Remember, you can always Undo until you close the document!

• When you have finished exploring, click the Close Box without saving any changes.

This session is now complete.

## Session 4: Creating a Document; Entering and Manipulating Text

Now that we have explored some of the basic parameters of Nisus it is time to create a document.

This session of the Tutorial presents the basic skills used in entering and manipulating text. You will learn how to Copy, Cut and Paste in your document and from one document to another. You will learn how to change the Font, Size and Style, of your text, check the spelling, see how it will appear on a full page of paper and print the document.

You will also learn how to make your own personal stationary. Page numbers (page #) follow those items discussed in the manual.

You may continue from where you left off (before closing the file) in Session 3 of the Tutorial or begin a new session of working with Nisus.

- Open the file labeled 9/13/89.
- A tiny portion of the Catalog is visible in the upper right corner of the screen. Click on it or choose Catalog from the File menu.
- Click on **Del Mar** and choose **Tutorial** from the pop down menu as illustrated in Figure 3-14.

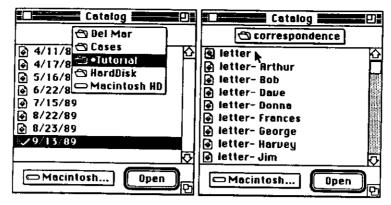


Figure 3-14 A and B Navigating Through the Catalog

 Double-click on the Personal folder then the correspondence folder. Then open the file called letter. It will look like Figure 3-15.

## **Entering Text**

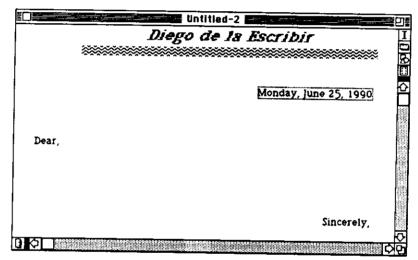


Figure 3-15 A Stationery Document

The insertion point is flashing above the word "Dear," ready for you to type the name and address.

Type:

Ms. Susan Monas 13045 Ewina Way Poway, CA 92064

- Place your insertion point between Dear and the comma that follows and type "Sue."
- Place your insertion point at what would be the second line beneath Dear Sue and type (purposefully including the typographical errors): "I've been meaning to call you for months. I know, we only live twenty-five miles from each other, but you know how busy life can get. I know you're teacing an English class up in Ramona. I recetnly came across this teenager's limeric. (Press the Return key to start a new paragraph, then continue:) It made me think of you, and I wondered if you'd find it helpful as a project for your kids."

Notice again that while typing text at a computer you don't hit the return key at the end of a line but only to start a new paragraph. Also, as we learned above when exploring the rulers, you don't need to place more than one return character, between paragraphs. These operations are accomplished automatically through line and paragraph spacing.

#### Copy Between Files (page 82)

- Click on the Title Bar of the window visible above the document:
   9/13/89; go to the Tools menu, drag down to Windows (page 195) sub menu and choose 9/13/89; or press the option or Command key and click your mouse on the Title Bar and choose 9/13/89.
- Scroll down to the limerick, place your insertion point immediately following the Paragraph Ruler and drag across the poem to select it

• Choose Copy from the Edit menu.

Whenever you **Copy** or **Cut**, whatever has been copied or cut is temporarily placed on the Clipboard. You may look at it.

• Choose Show Clipboard from the Edit menu.

Nisus has ten editable clipboards. You can manipulate your text on the clipboard before pasting it in your text window.

- Close the clipboard either by clicking the Close Box or by choosing Close from the File menu.
- Choose Toggle Front 2 from the Windows sub menu of the Tools menu, or click on the horizontal scroll bar that is visible at the very bottom of your screen as illustrated in Figure 3-16.

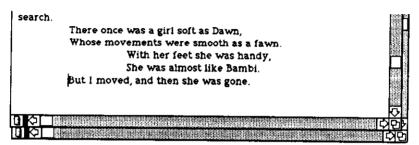


Figure 3-16 Working with Windows

Notice that the windows are of different sizes. When you save your document, the size, shape and position of the window on the desktop will be saved with the file. If you click the Zoom Box  $\square$  in the upper right corner of the window the document window will fill the page; clicking a second time will return it to its previous position. If the Zoom Box is hidden you can accomplish the same effect by double-clicking on the Title Bar.

 Place a return character following the text of the letter you've written and choose Paste (page 83) from the Edit menu.

The limerick is now pasted in the letter.

Perhaps you want the limerick to precede the sentence: It made me think of you....

 Place your insertion point in front of that sentence and select it by dragging across the sentence to its end, or "triple-click" (click three times in rapid succession on the desired sentence).

- Choose Clipboard 1 from the Clipboards (#) sub menu of the Edit menu.
- Choose Cut from the Edit menu.

The limerick is still on Clipboard 0 and the sentence has been placed on Clipboard 1. You can see this by choosing <code>Show Clipboard</code> again from the <code>Edit</code> menu, then choosing Clipboard 0 from the <code>Set Clipboard</code> (#) sub menu of the <code>Edit</code> menu. Be sure to choose Clipboard 1 again before the next action. The number in the parentheses following <code>Set Clipboard</code> at the bottom of the <code>Edit</code> menu indicates which Clipboard is current.

- Click your insertion point at the end of the limerick, enter a return character and choose Paste from the Edit menu.
- Enter another return character and type: "Let's get together to enjoy a good meal and a private reading at Marilyn's down by the lake. I'll give you a call."

## Changing Font, Size and Style (pages 103)

You may want to give the letter a bit more pizazz.

- Drag across the limerick to select it.
- Click on the Master Ruler icon to show the ruler.
- Click on the right justify icon . Choose Geneva (Geneva) from the Font menu (pressing the Option or Command key as you pull down the menu displays the font names in their own fonts). Choose 14 point from the Size menu. Drag the Right Line Wrap Indicator T to six and a half inches
- Select the "handy/Bambi" lines and drag the Right Line Wrap Indicator 

  in further to the five and a half inch mark.

#### Rectangular Selection (page 79)

Place your insertion point in front of Dawn; press the Option key while you drag through gone. This is rectangular selection. Notice as illustrated in Figure 3-17, that this highlights the words Dawn, fawn and gone only. Choose Italic from the Style menu; then choose Extend from the More Styles submenu of the Style menu.

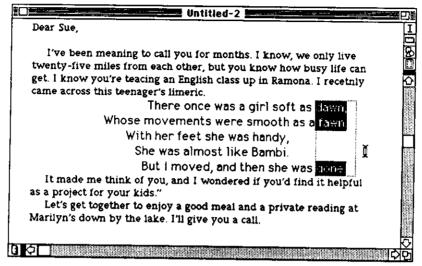


Figure 3-17 Rectangular Selection

We've finished writing the letter but now it is time to check the spelling.

## Check Spelling (page 217)

- Place your insertion point at the top of your document.
- Choose Spelling... from the Tools menu. When the dialog box appears as illustrated in Figure 3-18, click Start Checking.
   When the spelling checker stops at a word click Replace if it is a misspelled word or Skip for words that are correctly spelled,

though not in a standard dictionary. You can also click **\$kip All** for recurring proper names. The Macintosh will beep at you and display the message **No more misspelled words**, when that is the case.

· Close the Spell Checking dialog.

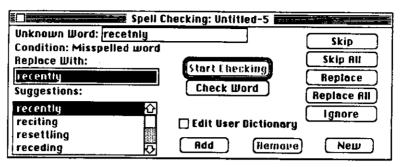


Figure 3-18 The Spell Checking Dialog

#### Page Layout (page 135)

The letter is now ready for final formatting before printing. You want to be sure that the letter appears on the page properly. To do this check the letter in **Layout Page...**.

- Click on the Layout Page icon or choose Layout Page... from the File menu. You will see that the text of the letter is a bit high for the page.
- Click on the Side by Side icon so that you can edit your letter and see how the page layout is affected as illustrated in Figure 3-19.

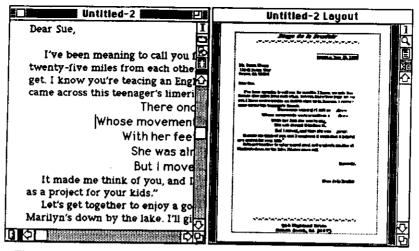


Figure 3-19 Click the Side by Side icon to edit text with the Layout window open

Click on the window with your letter Untitled-2 to make it the
active window and place your insertion point at the top of the
page. Enter a few return characters till you are satisfied with the
appearance of your letter.

# Saving (Dage 63), Printing (Dage 169) and Closing

You are now ready to save the letter, print it and put it away.

- Choose Save from the File menu. In the dialog that comes up type "letter- Susan". Notice that the letter will automatically be saved in the folder in which you originally found the file. However, you can, save it anywhere else you wish simply by navigating through the folders and disks indicated in the dialog window.
- Click Save.
- Make sure you are connected to a printer, then choose Print...
  from the File menu. See Figure 3-20. When the dialog comes up click Time and Date to update the date on the letter (you would want to do this only when there is a date variable in your document that needs updating) then click OK.

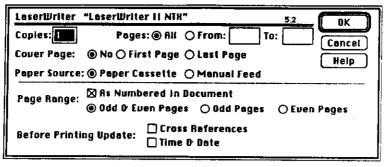


Figure 3-20 The Print Dialog window

 Click on the Close Box in the upper left corner of the window or choose Close from the File menu.

#### Nisus Stationery (page 64)

Before moving on, take a closer look at Diego's personal stationery. You can make some for yourself.

A tiny portion of the Catalog is visible in the upper right corner
of your screen. Click on it. Notice that, unlike the Open dialog,
the Catalog can always be on your screen. Its powers will be
explored further, at another point in the tutorial.

Notice that the icon in front of "letter" in the Catalog window is different from all the other Nisus file documents. This is called a "Stationery File." You can set up any number of different Stationery Files with any combination of formatting characteristics and give them any name you wish. Each one will appear as "Untitled-#" (in an increasing numerical sequence during that working session) whenever it is opened. The one you name Nisus New File and store in the System Folder will be the file Nisus opens whenever you choose New

This stationery has a date with a dotted box surrounding it. This item is called a variable and can be placed in your text by choosing **Insert Date** from the **Variables** submenu of the **Edit** menu. (Various options regarding the appearance of the date are available through the dialog box that opens when you choose **Set Date** & **Page# Formats...** at the bottom of that submenu.)

- Choose Update Time & Date from the Format menu. The date can also be made current on printing.
- Scroll through the letter and notice that there is a "header" and a
  "footer" at the top and bottom of the page. You cannot put your
  insertion point in that area to change it while in this document
  window.
- Click on the Show Headers/Footers icon
   in the upper left corner of the Master Ruler; it will become highlighted and the text in your window will shift to the right to show where headers and/or footers have been inserted in your document.
- Scroll in your letter till you see "Dear,." See Figure 3-21. There you will see two small icons: "Header on Odd Page" and "Footer on Odd Page." These indicate that the Header and Footer for this document are attached at these points.

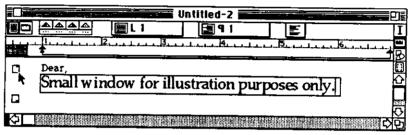


Figure 3-21 Header and Footer icons

- Double-click on the Header on Odd Page icon. The Headers
  and Footers for... window will open. This window shows all
  the headers and/or footers for the document. The text in this
  window can be edited just as any Nisus document, using the
  same techniques you have already learned.
- Triple click on Diego de la Escribir (double-clicking on a word in Nisus selects that word, triple clicking selects that line and quadruple clicking selects that paragraph). Type in your own name; choose the font, size and style(s) you want. You may wish to have your address with your name at the top (or at the bottom) of the page. Cut and Paste as you wish. If you prefer to have all your information in the header or the footer, after you have typed the information to your satisfaction, place your

insertion point in the one you do not want and choose Remove Header/Footer from the Header/Footer menu that appears on the far right of the menu bar when the Headers and Footers for... window is open.

Notice the graphic in the header and footer. This is a character graphic that was created by selecting a fancy fill pattern and a "white" line pattern [See 1]. Following the procedures described above in Session 3 of the Tutorial, you can alter this according to your needs and desires.

Click the Close Box to return to the main document.

Whatever attributes the window shows when you save it will appear when you reopen it. This applies to both the size and the placement of the window on your screen. If you do not want the show Header/Footer on Page icons to appear or the master ruler to show, simply reverse the procedure that was used above to show them—click on the in the ruler.

• Choose Save As... from the File menu. Determine where you want the file saved by navigating through the folders. Type the name you want to use for the file ("Personal Stationery" is safe) then click on the Nisus Stationery icon (the second from the left) and click Save as illustrated in Figure 3-22.

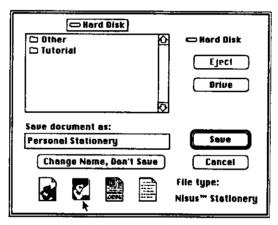


Figure 3-22 The Save As... dialog window

• Click the Close Box Ex.

This session is now complete.

One of the most powerful features of Nisus is its Find/Replace ability. In an open (or a closed) file, you can find virtually anything that can be described. This session of the Tutorial presents an introduction to the Find/Replace capabilities of Nisus. You will learn how to do a find and replace using the Normal Search mode. You will also learn how to find and replace text patterns using PowerSearch and, through that, you will be introduced to the GREP (Global Regular Expression Parser) searching language. You will also be introduced to the Macro tools and abilities of Nisus. Page numbers (page #) follow those items discussed in the manual.

# Find and Replace (page 2003)

## **Changing Text Attributes Using PowerSearch**

 Open the file labeled •Tutorial (this is an early disk version of Session 2 of the Tutorial found in your manual; it is not necessarily accurate and appears here only for you to experiment with).

The manual is printed using a font called Palatino for its basic text with sub headings in Helvetica. When menu and dialog box commands are referred to in the manual the font **Chicago** is used (this is as they appear in the program). If you do not have Palatino or Helvetica in your system (which is probable), the portions of the file that were in those fonts will appear on screen as Geneva.

 Drag your mouse down to the bottom of the Font menu. The names Palatino and Helvetica appear in italics to indicate that these fonts are in your document but not in your system.

For the sake of this exercise we will change the font of the document to Geneva without affecting the menu items already in Chicago.

 Choose Find/Replace... from the Tools menu. The Find/Replace dialog window appears.

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Tutorial: Session 5: Searching

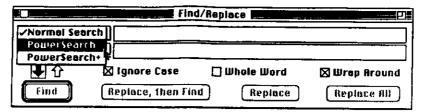


Figure 3-23 Find/Replace window with the Find menu

 Click on Normal Search (this is the Find pop up/down menu) so that the pop down menu appears and choose PowerSearch as illustrated in Figure 3-23.

The window will expand to show new searching menus.

- Choose Any character or ¶ from the Wild Card menu.
- Choose 1+ from the Repeat # menu. The following characters will appear in the Find box: (Any character or 4) (1+).
- Press the Tab key to move your insertion point to the large horizontal box beneath the Find text edit box and beside the pop down menu labeled Replace (this is called the Replace text edit box) and choose Found from the Match menu. The Find/Replace window will now appear as illustrated in Figure 3-24.

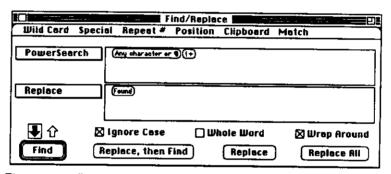


Figure 3-24 Find/Replace window with PowerSearch expressions

- Double-click in the Replace text edit box to select the "text" there.
- Choose Geneva from the Font menu, then check to verify that Any Size, + Any Styles Any More User Styles and Any Color are also selected.

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- Press the Tab key to move your insertion point to the Find box, selecting what is there. (You can also click your mouse three times in rapid succession in the Find box to select the "text" there (double-clicking selects one "word" triple clicking selects a sentence).)
- Choose Palatino from the Font menu then check to verify that Any Size, + Any Styles Any More User Styles and Any Color are also selected.
- Be sure that **Ignore Case** and **Wrap Bround** are checked as in the illustration above then click **Replace BII**.

The dialog box illustrated in Figure 3-25 will appear.

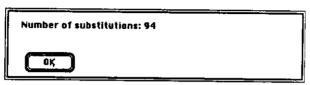


Figure 3-25 Find/Replace dialog box

The number 94 refers changes in individual paragraphs, not characters.

- Click OK . Notice that the "text" in the Find box is still selected. Now choose **Helvetica** from the **Font** menu.
- Click Replace All

This time the number of substitutions (for the sub headings) is 26.

• Click ok and examine your file. Notice that if Palatino and Helvetica were in your system the text in those fonts would be changed to Geneva while all the sizes and styles remained unchanged. This is also the case with all the text in Chicago, and New York (which you used to enter text for the letter in the exercise of Session 2).

Before we move on lets examine what the PowerSearch+ symbols are for what we've just done.

 Click on the Find/Replace window so that it becomes the front window or choose Find/Replace... from the Tools menu if it is completely hidden. Click on the Find pop up menu and choose **PowerSearch**+. The phrases change to symbols ("metacharacters") that represent those same search characteristics.

:. Any character or Return + 1+ & Found

As you become more familiar with the searching capabilities of Nisus you will become more comfortable recognizing, and using, these symbols.

#### Normal Search (page 204)

- Select the word Nisus in the second paragraph of the file: "Double-click on the Nisus icon" (either double-click on it or drag across it).
- Choose Copy to Find from the Tools menu.
- Click on the Find/Replace window to make it the active window.
- Choose Normal Search from the Find pop up menu. Notice that the menu options in this window are no longer enabled.

Notice that the appropriate font, size, style and color have been marked in their respective menus.

- Choose Any Font, Any Size, +Any Styles, Any More User Styles and Any Color from the Font, Size and Style menus.
- Choose Copy from the Edit menu.
- Press the Tab key to move your insertion point to the Replace text edit box or Double-click your mouse there and choose Paste from the Edit menu.

The word Nisus (in Any Font, Any Size, +Any Styles, Any More User Styles and Any Color) will replace the &.

- Choose 12 from the Size menu, Bold from the Style menu and Extend from the More Styles sub menu.
- Click Replace All, and click OK in the dialog box that indicates that 8 changes were made, then check your document to see the results: NISUS.

#### Pattern Matching Using PowerSearch+ (see 47)

In the sample file being examined "Page numbers (a) follow those items discussed in the manual." This, however, is not the most "User Friendly" manner of indicating page numbers. It would be much nicer if the word "page" appeared in parentheses indicating that that number actually referred to a page and not to something else. We could scroll through the document looking for each time a number appears in parentheses and then insert the word "page" or we could find the pattern of an open parenthesis with one or more digit followed by a closed parenthesis and then have Nisus insert the word "page" in each instance.

- Choose Find/Replace from the Tools menu.
- Choose PowerSearch from the Find pop up menu.
- Clear out whatever may be in that box by pressing the Tab key to place your insertion point there and pressing the delete or backspace key.
- Type an open parenthesis: "(" and a close parenthesis: ")" then
  place your insertion point between them.
- Choose 0-9 from the Wild Card menu and 0+ from the Repeat # menu.
- Click Find repeatedly.

Notice that each instance of that pattern will be found regardless of how many digits appear between the parentheses. Notice also that "real" characters can be combined with PowerSearch (or PowerSearch+) expressions.

At the beginning of the document is a number sign in parentheses "(a)" and at the top of page 3 there is a sub heading: Paragraph Ruler (81-91). To find these the find expression needs to be fine tuned a bit.

- Place your insertion point following the open parenthesis and type the number sign "#" then choose 0 or 1 from the Repeat # menu.
- Place your insertion point following the expression ①+ and type a hyphen "-" then continue to choose 0 or 1 from the Repeat # menu, 0-9 from the Wild Card menu, then 0+ from the Repeat # menu.

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- Place your insertion point in front of the open parenthesis: "(" and choose the open parenthesis: "(" from the Match menu.
- Place your insertion point following the open parenthesis: "(" and choose the close parenthesis: ")" from the Match menu.
- Choose the open parenthesis: "(" from the Match menu.
- Place your insertion point following the expression ①+ and choose the close parenthesis: ")" from the Match menu.
- Choose the open parenthesis: "(" from the Match menu.
- Place your insertion point following the close parenthesis: ")"
   and choose the close parenthesis: ")" from the Match menu.
- Press the Tab key to move your insertion point to the Replace box, selecting what is there, and choose Any Font, Any Size, Plain, +Any Styles, Any More User Styles and Any Color).
- Choose (... Found 1) from the Match menu.
- Type page then choose **Space** from the **Special** menu.
- Choose (... Found 2) from the Match menu.

The Find/Replace dialog window should now appear as illustrated in Figure 3-26.

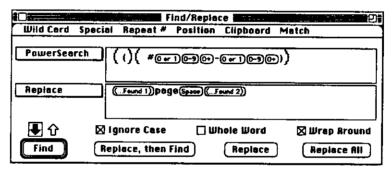


Figure 3-26 Find/Replace dialog window searching for parenthesized number

Your find expression will find an open parenthesis followed by a number sign (which may or may not be there) followed by any number of digits (which may or may not be there) followed by a hyphen (which may or may not be there) followed by any number of digits (which may or may not be there) followed by a close parenthesis.

The expression is divided into two smaller expressions enclosed by

the PowerSearch parentheses: "( )."

In the Replace box the word "page" and a space are added into the midst of these expressions.

Click Replace All

There will be six substitutions.

- Click OK in the dialog box that appears and check your document.
- Click once again on the Find/Replace window to make it the active window, choose PowerSearch+ from the Find pop up menu to examine what has been accomplished.

Once again the phrases change to symbols ("metacharacters") that represent the same search characteristics.

The backslash "\" changes the meaning of the character it precedes. When it precedes a character that functions as a metacharacter (that is it has a specific symbolic meaning in the PowerSearch+ (or GREP) searching language), it "turns off" that symbolic meaning and causes it to function literally. The reverse is also true; a backslash can cause a character that has no special meaning to function in a special way.

Those characters surrounded by parentheses (in this case "\(...\)") are interpreted as individual expressions to be found and can be replaced by themselves (i.e.  $\1$  etc.).

:d 0-9 + 1+ - 0 or 1 \* 0+ \s space

• Choose **Save** from the **File** menu and then click the Close Box

#### Search in Closed Files

Nisus can be used to build a textual data base.

It is not uncommon to have correspondence saved in files named for the date the letters were written or the person to whom they were addressed, but it is often difficult to find the one or two letters or documents that deal with a particular key word. There are Desk Accessories that can find a file on your disks if you search by name. However, Nisus can find any document based on any key word (or even some other text attribute) in the file.

An example of how your text files can be used as a data base follows: Suppose you are on the Technical Support staff at Paragon. People frequently ask how Nisus handles columns. You could rewrite a letter each time adding the specific details the correspondent requested, or, you could use the power of Nisus to help prepare the responses. Certain aspects of the procedures could be copied from previous letters and sent out... if those letters could be found. That is our present task... find those letters.

- Choose Catalog... from the File menu. Inside the \*Tutorial
  folder is a folder marked Personal. Open that folder, then open
  the correspondence folder inside it. There, a number of folders
  labeled by the numerical equivalents of the months of 1989 are
  listed.
- Open 5/89, choose Select All from the Edit menu then choose Add To Search List from the Catalog menu that appears on the right edge of the Menu Bar.



Figure 3-27 The Catalog with icons indicating files have been added to the Search List

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Notice as illustrated in Figure 3-27 that the small file icon has been changed to an eye indicating that the file will be searched for the text in question.

- Repeat this process with the remainder of the folders (6, 8, 9, 10, 11). By the time you have finished you will have added over forty files to the search list. Imagine how long it would take you to search through each one individually....
- Navigate through the Catalog to find your Macros folder and double-click on the file labeled Macros for Creating to "load" those macros as illustrated in Figure 3-28.

"Loading" a macro file adds the macros in that file to the commands available to you. A long list of macro commands will be added to the bottom of Macros submenu of your Tools menu.

Macros are many "micro" (i.e. individual) commands accessible from the Nisus menus that are gathered together so that they all work in a sequence when called by a particular macro command. A specific macro is like a servant with a dedicated purpose.

 Choose Save Search List from the bottom of the Macros submenu of your Tools menu.



Figure 3-28 The Catalog showing Macro Files with Macros for Creating "loaded"

When a macro command is chosen one generally says that the macro is "running," or you "run" a macro.

When the macro **Save Search List** has run, the names and locations of the various files you have added to the search list will be added to the macro **Restore Search List**.

- Choose Find/Replace... from the Tools menu.
- Type "column" in the Normal Search box of the Find/Replace window. Be sure that Ignore Case is checked and Whole Word and Wrap Around are not, as illustrated in Figure 3-29.

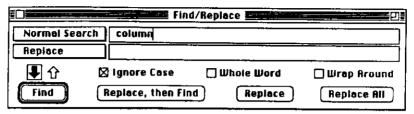


Figure 3-29 The Find/Replace dialog window prepared to search through closed files

• Click Find. Nisus will now search each of the selected files. When it finds a file with the word "column(...)" in it that file will be opened and the word "column" will be highlighted in the center of your screen. To continue searching for more files with "column" simply click Find again.

Nisus finds each appearance of the word "column" in a particular file before it continues on to find the word in other files. When you click **Find** after the last occurrence of the search word has been found, Nisus will display a dialog box illustrated in Figure 3-30 indicating that the text is not found.

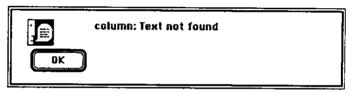


Figure 3-30 The "End of Search" dialog box

• Click OK

Those files without "column" in them will simply be removed from the search list.

 Choose Catalog... from the File menu (or click on the Catalog window if it is visible).

Notice that all the files that had the spicon beside them no longer show that icon. Those files open of sour desktop have a check by them. The remainder (those that are closed) have no special indicator. You can review the files that discuss columns. We will return to these document windows later.

By running the macro **Save Search List**, we have changed the macro **Restore Search List**. The information of what files were on the search list has been added to it. You can save this information in a separate document so that the list is not lost if and when you save a different search list.

 Press the Option key while you choose Save Search List from the Macros submenu of the Tools menu.

This time, instead of "running", the Macros for Creating the macro file window, illustrated in Figure 3-31, opens.

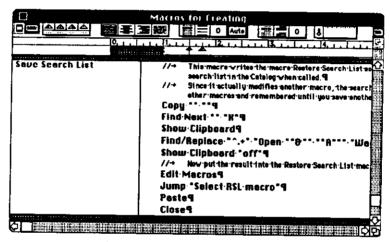


Figure 3-31 The Macro Window

To the left of the vertical line is the name of the macro and to its right is the list of "micro" commands that make up the macro.

Notice at the top there is a description of what the macro does:

//This macro writes the macro Restore Search List so that it will restore the search list in the Catalog when called.

//Since it actually modifies another macro, the search list will be saved with the other macros and remembered until you save another one in place of it.

- Scroll up till you get to the top of the preceding menu. You will see the list of all the files that have been saved. These are now part of the macro Restore Search List.
- Place your insertion point in front of the word Open at the beginning of the list and select the entire list.
- Choose Copy from the Edit menu; New from the File menu; then Paste from the Edit menu.

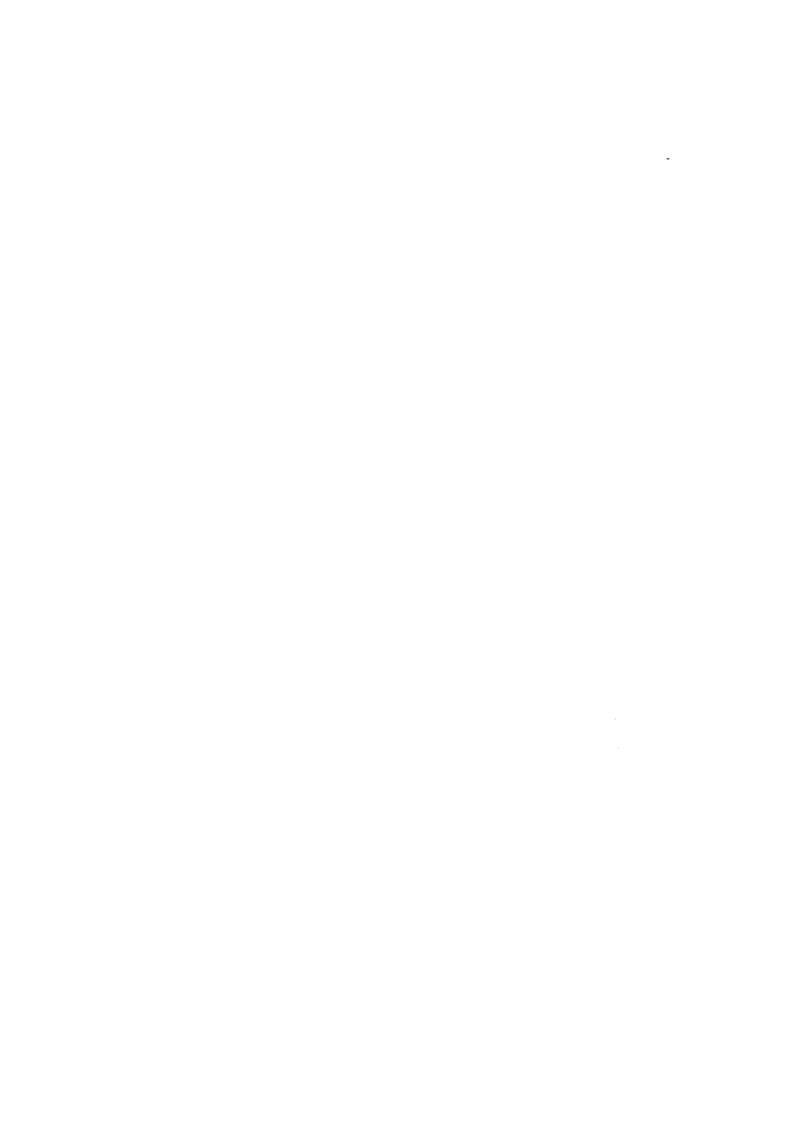
You can save this search list as a separate file and have various search lists for different tasks.

 Choose Save from the File menu and type Search List Nisus Tech Support, then close that window.

When you wish to refer to the Nisus Tech Support files copy this list, open the Macros for Creating window as described above, and paste the list over whatever list appears in the macro.

- Close the Macros for Creating window by clicking on its close box
- Choose the macro **Restore Search List** from the **Tools** menu. Notice that now all the files that once had the eye icon beside them once again display that icon.
- Close each technical support letter as you finish reviewing its contents.

This session is now complete.



# Working with Text and Documents

The various aspects of texts and documents are tightly woven together.

This chapter tells you how to create, open, save, print and close a document. It also explains how to add, format, edit and change the appearance of text in that document. The details of document layout, including page setup, headers and footers, footnotes, page and line numbering are dealt with here. The chapter explains the convenience features in Nisus, such as markers, paragraph sorting, and undo. Also included are more powerful features like style sheets, cross referencing, and merging documents.

The chapter begins with a discussion of how to create a document file. The details of how to enter and manipulate, as well as change, the appearance of its text follow. Instructions on managing multiple files, as well as how to print and save your documents complete the chapter.

## An Introduction to Files

When you open the Macintosh "desktop" you see a variety of type
of icons. Along with the common folder , the two primary type
are applications and files . A file is created by a particula application.

Numerous file types can be created by Nisus. These include:

- Document file
- Glossary file
- Macro file
- Stationery file
- · User Dictionary file
- Preferences file

The document file is the most common. Unlike a blank sheet of paper, a document file always has some format when it opens on the Macintosh desktop. The letter, memo or report, whatever you type, is the text you enter in a document file.

## **Memory Based Word Processing**

Nisus is a memory based (not a disk based) word processor. While you are working on a document, it is kept entirely in memory; consequently, all editing operations are very fast. Scrolling and searching are also very fast. The size of your document, however, is limited by the amount of available memory.

If you are running low on memory, a warning dialog will appear and one or more windows may "black out." To restore the window, click in the black area; Nisus will display the window if at all possible. For more information, see Memory Use page 466.

Save your work and try any one or more of the following to increase available memory:

- Close some windows which you do not absolutely need to have open.
- Clear the clipboards: press the Option key and choose Copy from the Edit menu. This will clear all clipboards.
- Use Clear Undos... (Option Undo), but remember that you will not be able to undo this action and any other made before it.
- If using MultiFinder you may have to increase the memory available to Nisus. To do this you first have to quit Nisus,

- select the Nisus application icon, choose **Get Info** from the **File** menu of the Finder, and then type a larger value into the box at the bottom right corner of the dialog (make sure the application is not locked check the box in the upper right corner of that window).
- You may have set a large RAM Cache. Check the control
  panel setting of the RAM Cache and try turning it off (the
  amount of available RAM is indicated on the right hand
  edge of the Info Bar). Setting too large a RAM Cache can
  also slow Nisus down if it makes your Macintosh low on
  memory.

# Creating or Opening a File

The commands in the **File** menu allow you to create, open, close, save, and print documents, revert to the saved version of your document, get information about it, and merge documents.

## Creating a New File

To create a new document, choose **New** from the **File** menu.

- To establish the format of a new file when it opens (font, size, style, rulers, etc.) create a Nisus New File as explained on page 65.
- You can also create a new document by opening a Nisus Stationery file.

## Opening an Existing File

The Open Dialog

To open an existing document, choose **Open...** from the **File** menu. Figure 4-1 displays the standard Open File dialog which can be used instead of the Catalog which is introduced, page 62, and in detail on page 191.

To open a file either double-click on that file's name or select the file by clicking once on its name then clicking on the Open button. You must choose Open... from the File menu every time you want to use the Open File dialog.

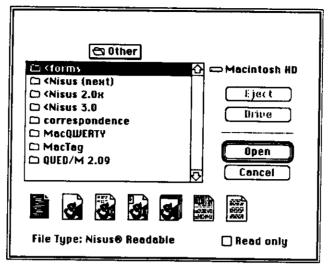


Figure 4-1 The Open File dialog

Initially, you are shown every kind of file that Nisus recognizes. You can view files by kind when you click the document icons at the bottom of the dialog. Folders are always displayed.



Click this icon to display the names of all files understood by Nisus.



Click this icon to display only the names of files created by Nisus.



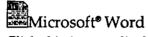
Click this icon to display only the names of Nisus glossary files.



Click this icon to display only the names of Nisus macro files.

Nisus® Dictionary

Click this icon to display only the names of Nisus dictionaries, user dictionaries and thesaurus files.



Click this icon to display only the names of Microsoft Word files. During conversion from Microsoft Word, Nisus does not preserve the following

- · Vertical bar tab stops
- Style Sheets
- · Paragraph lines, boxes, and keep together
- Multiple sections
- Side by Side Paragraphs
- Tables
- Equations

Word and then pasted into Nisus as graphics. To accomplish this, select the item in Microsoft Word and press Command-Option-D. You should use the **Scrapbook** desk accessory as a temporary storage area if you will be importing a lot of tables and/or equations in this manner.

Headers and footers for only the first section of a Microsoft Word document will be imported.

"slow saved" in Microsoft Word 3.0x and 4.0 if they have been "slow saved" in Microsoft Word. If you have not saved your files in this manner, you need to open the document once again in Microsoft Word and choose Save As... and click the appropriate option to slow save the file.



Click this icon to display only the names of files created in MacWrite ersion I. You may also use the MacWrite Clipboard to transfer ocuments to and from MacWrite. Read Editing Preferences in hapter 15 to learn how to use the MacWrite Clipboard. Nisus does not preserve MacWrite headers and footers.

#### Opening a File With the Catalog

The Catalog is the window in the upper right corner of the screen when you first open Nisus and choose **Catalog...** from the **File** menu. This is Nisus' version of the Open File Dialog.

You can open the Catalog, or bring it to the front by choosing Catalog... from the File menu. When the Catalog window is active, the Catalog menu appears at the right end of the menu bar. It allows you to navigate through folders, open documents and has many other properties and functions.

To open a file using the Catalog double-click on that file's name or select one or more files then click the **Open** button.

See more about the Catalog under File and Window Management, page 191 later in this chapter.

#### Read Only

By checking the **Read Only** box in the Open File dialog, you can specify that files are to be opened in Read Only mode. Any files you open with this box checked cannot be modified.

The I-beam changes into a lock when the active file is a read-only document; this lets you know that the window is read-only. Any attempt at changing the file will bring up the dialog shown in Figure 4-2.

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Figure 4-2 Attempting to change a read-only window

If you have a document open, you can open a second (third, fourth, etc.) read only copy of the open document by pressing the Shift key while double-clicking on the title of the file in the Catalog window.

# Saving Files

It is important to save your work often. There are many ways in which you can save your files.

## Saving a New File

Changes to your document are stored in memory until the time you save. Choose **Save** from the **File** menu to save your document on disk.

When you save an untitled file, you will be asked to give your document a name and set its document type. This also happens if you choose **Save As...** from the **File** menu.

The first time you save an untitled file, even if you choose **Save**, you will see the Save As dialog as shown in Figure 4-3. The current disk and folder name in the dialog shows where your file will be saved. To save the document in another folder change the folder before you click **Save**.

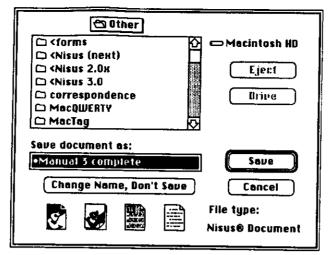


Figure 4-3 The Save As dialog

File names may be up to 31 characters long. You should limit yourself to 27 characters so Nisus can append .bak to the document name when it saves a backup. Nisus will shorten the name before appending .bak, if necessary.

You can save your document in one of four formats. Each is explained below.



This is the most common document format and is therefore selected by default.



A stationery document is a template document which when saved can be reused. When you open a stationery document, its contents are automatically transferred to an untitled document. The stationery file can contain text and graphics just as a regular Nisus document does, or it can be an empty file used only to set up the starting font, style, and size, ruler settings, and any aspect of the window, including its size, position on screen, state of the rulers, etc. You may save as many stationery documents as you wish.

To create a stationery, "template," document:

- 1. Choose New from the File Menu.
- 2. Set font, style, size and ruler to your specifications.
- Add text (including variables) and graphics, if any, that you wish to appear every time you open the template document.
- 4. Set up the window the way you want it to open.
- 5. Choose **Save As...** from the **File** menu to give your template document a name.
- 6. If you have a PostScript printer, choose As PostScript® from the Display submenu of the Tools menu.
- 7. Click on the Nisus® Stationery icon to make it a stationery type file.
- 8. Type in a name for the template, and click Save

When you save a file as **Nisus® Stationery**, its screen window name will change to **Untitled**. To open the template document, choose it from the Open dialog or the Catalog window. For example, choose "Business Letter" if you wish to write a letter using the business letter format that you have already created and saved as a stationery document.

When you open a stationery file, the file opened is named **Untitled**. Therefore you can modify it and save it without destroying the original. When you choose **Save**, you will be asked to name it with the dialog in Figure 4-3.

#### Saving a Nisus New File

The stationery file also allows you to set preferences for your new files. When you choose New from the File menu, Nisus looks for a stationery document called Nisus New File first in the folder containing Nisus and then in the System Folder. If it is found, it will be opened and named Untitled-#.

#### To set new file preferences:

- 1. Choose New from the File Menu.
- 2. Set any window, font, style, size and ruler to your specifications (any menu item that can be checked or unchecked and any dialog that is saved with the file (such as the one that appears when you choose Set Scale... from the Graphics menu) can be saved a part of your Nisus New File—these attributes will be identified in the manual as they are discussed, or check the index for Nisus New File).
- 3. Set the window size, location and the state of all the icons, rulers, etc.
- 4. Choose Save As... from the File menu.
- 5. Name your document Nisus New File.
- 6. Click on the Nisus® Stationery icon.
- 7. Save your document in the folder containing the Nisus application or in the System Folder.

Because choosing **New** opens all documents as **Untitled**, you can make modifications to the template after it is opened and save it with a new name without fear of overwriting the original.





Because the file type of Nisus documents is TEXT, other programs can open Nisus documents as TEXT Only even if they were not saved that way by Nisus. If you choose this option the file will be saved with only the text information. All formatting and graphics will be omitted, making the file take up less space than it would otherwise.

Normally when you **Save As...** by another name, the title of the window changes to the new name. However, the title of the document will not change when you **Save As Text Only**. Although the version saved on disk is **Text Only**, the document in the window is

unmodified—none of its information is lost. This enables you to save a document as **Text Only** and continue working.

## Saving an Existing File

Once you give your document a name, you don't see a dialog when you choose **Save**. Your document is saved quietly and the Change Indicator icon ( $\mathcal{D}$ ), indicating that the file has been modified since the last save, disappears from the information bar.

You should save your work regularly. This protects you from losing your work because of a mistake, power failure or hardware problem. If a problem does occur, you may lose all the work you have done since the last time your document was saved. Because it is easy to forget to **Save**, Nisus will save your document automatically every several keystrokes if you tell it to do so. See Customizing Nisus, Saving Files Preferences page 441.

When you save your file to disk, it is safe as long as the disk is reliable. If the disk is damaged or lost, your work may be lost. Therefore, make it a practice to save a second copy of your work on a separate disk. You may do this manually, or have Nisus do it automatically whenever your document is saved.

Each time you save your document, a new file is written to the disk. If the save was successful and Nisus is set to remove backups, the previous version of the document on disk is removed. If Nisus is instructed to save backup files, the previous version of the file will remain on the disk with .bak added to its name.

Saving Preferences explains how to have Nisus save your files automatically, save a backup copy and save on two disks at once.

Saving an Alternate Version of a File Using Save As...

If you want to make a change to an existing document and save the new document without affecting the original, choose **Save As...** from the **File** menu. You can change the text, the format, or the file

type or merely change the name and/or location of the file. The original file will be closed and your newly saved file will remain open with the new name, location or any other changes made to it will be saved.

# **Editing a File**

#### The Document Window

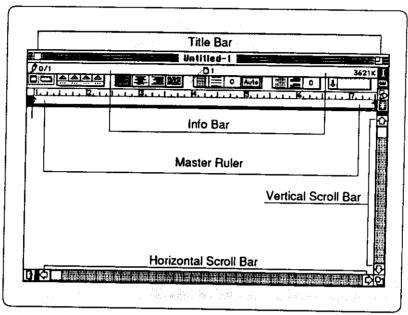


Figure 4-4 A Sample Untitled Window

When you choose **New** from the **File** menu, or open an existing document, a document window will appear on your screen as illustrated in Figure 4-4. This section describes the different parts of the document window: the Info Bar, Scroll Bar, Master Ruler, and Graphics Palette. Some of these items are available in other types of windows.

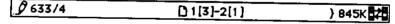


Figure 4-5 The Information Bar with the Sync. Scrolling icon showing

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. <b>D</b>	<b>□</b> 2	) 3987K 🖺 2

Figure 4-6 The information Bar without the Sync. Scrolling icon but showing the Current Clipboard icon

#### The Info Bar

You can show and hide the Info Bar Figure 4-5 and Figure 4-6 by clicking the Show Info Bar icon [I] at the top of the Vertical Scroll Bar of the window, or by choosing Info Bar from the Display submenu of the Tools menu.

The Change Indicator icon . **9** appears at the left side of the Information Bar when the document has changed since the last save.

When a file is opened as Read Only, the lock icon is displayed in place of the Change Indicator icon because the contents of the file cannot be changed (and the insertion point has a lock on it: ).

The insertion point position indicator (a pair of numbers separated with a slash: 633/4 in Figure 4-5) displays the current position of the insertion point. Nisus is shipped with the first number representing the character count from the beginning of the paragraph. The second number represents the line number from the beginning of the page. To change this display, see Measurement Preferences page 448.

The page number is displayed to the right of the page number icon in the center of the information bar. If your document has multiple columns, the column number is displayed in brackets following the page number (1[3]-2[1] indicates that column three of page one and column one of page two are on screen). If you choose to number your pages with Roman numerals (set in **Set Date & Page#Formats... from** the **Format** menu) the numbers in the Info Bar will appear as Roman numerals (Uppercase or lowercase) with their Arabic equivalents beside them: DXXIV(24).

The Synchronized Scrolling indicator is displayed at the far right of the information bar when synchronized scrolling is turned on. It is

displayed in the information bars of both windows the scroll bars of which are synchronized. The **Sync. Scrolling** command is in the **Edit Tools** submenu of the **Tools** menu. See below, page 200, for how to use **Sync. Scrolling**.

When Synchronized Scrolling is not activated and a clipboard other than Clipboard **0** is the current clipboard, the Current Clipboard icon **1** followed by the number of the current clipboard will appear on the right hand end of the Info Bar as illustrated in Figure 4-6.

To the left of the Synchronized Scrolling indicator, the number followed by a K (845K in Figure 4-5) is the Available Memory indicator. It indicates that you have that much available memory (measured in kilobytes [K] of RAM Random Access Memory) remaining with which to work.

To the left of the Available Memory indicator, Nisus can inform you if you have unmatching parentheses or quotations. For more on this feature see Matching Quotes and Parentheses, page 325.

#### The Master Ruler

The Master Ruler as shown in Figure 4-7 displays the margins, the first line indent/outdent, the line wrap indicators, tab stops, justification, line height, paragraph spacing and, (if there is one), the name of the current ruler, in the current paragraph. The ruler dimensions can be in centimeters or inches, according to the settings assigned when choosing **Measurement...** in the **Preferences** submenu of the **File** menu.

The Master Ruler permits you to set tab stops, line and paragraph indents, line height, paragraph spacing, and paragraph justification for the paragraph in which the insertion point appears. For information on how to set these attributes, see Formatting Paragraphs using Rulers page 86 later in this chapter. Note that margin limits are set only when the Layout window is open.

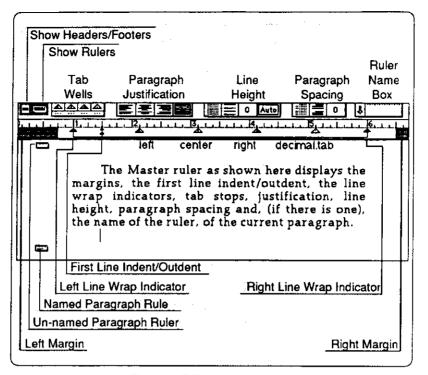


Figure 4-7 The Master Ruler

To show the Master Ruler at the top of your document window, click the Master Ruler icon in the scroll bar, or choose Master Ruler from the Display submenu of the Tools menu.

#### The Left Margin Display

The left margin of the document window displays the Header and Footer icons and the paragraph rulers.

Show Headers/Footers icon displays header/footer icons, if you have inserted any. See Headers and Footers page 152 in this chapter for more information.

Show Rulers icon displays rulers (to the left of paragraphs) that have formats differing from the format in the preceding paragraph. See page 86 for a discussion of rulers.

#### Icons in the Vertical Scroll Bar

The icons above the vertical scroll bar perform the following functions:

I ...... Show Info Bar icon
Click this icon to show and hide the information bar.

Show Master Ruler icon
Click this icon to show or hide the Master Ruler. (If the Graphics
Palette is showing, the Master Ruler appears in its place.)

Show Graphics Palette icon

Click this icon to display the Graphics Palette and enter graphics mode. Click it again, or click the Master Ruler icon, to return to text mode.

Layout Page... icon

Click this icon to display the Layout window. The features of this window are described in Layout Page..., and Printing pages 135, and 169, respectively.

...... Horizontal Split Screen Bar handle

The small black strip just below the Layout Page... icon is called the Horizontal Split Screen Bar handle. It is used to split a window into two horizontal panes. Another split bar at the bottom left corner of the window is used to split the window into two vertical panes. To use either one, drag it along the scroll bar to the point where you want the split.

Double-click the split bar to return the window to its unsplit state.

## Icons in the Horizontal Scroll Bar

The icons to the left of the horizontal scroll bar perform the following functions:

.....Show Vertical Ruler icon

Click this icon to display a vertical ruler that can be used to measure your distance from the top or bottom of the page. You can also activate this ruler by choosing **Bertical Ruler** from the **Display** sub menu of the **Tools** menu. When on the graphics sheets a line will appear in the ruler to indicate the actual position of the mouse.

.......... Vertical Split Screen Bar handle

The small black strip just to the right of the Show Vertical Ruler icon is called the Vertical Split Screen Bar handle. It is used to split a window into two vertical panes. The other split bar just below the Layout Page... icon is used to split the window into two horizontal panes. To use either one, drag it along the scroll bar to the point where you want the split.

#### **Graphics Palette**

To display the Graphics Palette shown in Figure 4-8, click the Show Graphics Palette icon in the scroll bar, or choose **Graphics** Palette from the **Display** submenu of the **Tools** menu. This puts you in the graphics sheets. You can use the graphics tools from this Graphics Palette to draw pictures in your document.



Figure 4-8 The Graphics Palette

Tools are provided to create and edit drawings. The Graphics Palette contains menus that determine how graphics interact with your text and with each other. For more information on the graphics sheets and the Graphics Palette, please refer to Chapter 7, Working With Graphics, page 233.

## **Adding Text**

When you type, text is inserted into the active document window at the insertion point (which continues to move farther to the right until the line wraps). Text may be inserted at any point in the document. Scroll until the text you want to see is in view, place the I - beam \( \) at that point, then click the mouse button.

You can also use the **Paste** command to insert text into your document. When you choose **Paste**, whatever is on the Clipboard is placed at the insertion point. If there is a current selection, it is replaced when you choose **Paste** or type.

To move the insertion point to the end of the document, click anywhere after the last character in the document. To place the insertion point immediately after the last character on a line, click anywhere on the line after the last character. The insertion point may also be moved using the arrow keys. For a listing of keyboard commands that move the insertion point, refer to the Quick Reference Guide pamphlet.

To bring the insertion point into view, press Enter.

## **Selecting Text**

When you click once within the text of the document window, the insertion point will be placed at the I-beam. You can drag the I-beam to select text, or hold down the Shift key while you click to extend the current selection.

There are faster ways of selecting whole words, lines and paragraphs.

To select		Place the I-beam over it and	
•	a word a sentence a line	double-click triple-click Option triple-click	
٠	to beginning of sentence a paragraph a document	Shift triple-click click 4 times click 5 times or choose Select All	

To continue selecting text as the mouse is moved, hold down the mouse button after clicking the desired number of times and drag. This selects text as whole objects. For example, if you double-click and drag, you will select only whole words, if you click four times and drag, you will select only whole paragraphs.

When you Option triple-click to select a line which has a return character "¶" at the end, the return character is not selected.

#### **Rectangular Selection**

The standard selection method selects characters, wrapping from the end of one line to the beginning of the next. Nisus also provides a method for selecting a column of text. This is called a rectangular selection.

Rectangular selection works best on columns separated by tabs. In Figure 4-9 a column without its following tabs is selected while in Figure 4-10, a column and its following tabs are selected.

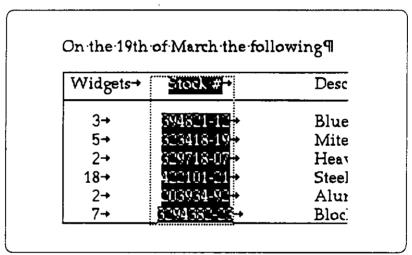


Figure 4-9 A Rectangular Selection without Tabs selected

#### On the 19th of March the following

Widgets	Stock #	Descri
3	394821-12	Blue
5	323418-19	Miter
2	329718-07	Heavy
18	422101-21	Steel
2	203934-92	Alum.
7	3294382-23	Block

Figure 4-10 A Rectangular Selection with Tabs selected

To move the Stock # column in front of the Widgets column, as in Figure 4-10, use rectangular selection.

The I-beam changes into the Rectangular Selection Tool when the Option key is pressed. Create rectangular selections by pressing the Option key while dragging. As you drag, a frame defines the rectangular region of characters being selected. Because the characters of proportional fonts are of varying width, the actual selection will probably be ragged.

The selection edges of each line are defined by the boundary character nearest to the rectangle. In Figure 4-10, the right side is straight, because tabs are used to separate the columns and tabs are of equal width. The left edge is not straight because the stock numbers do not start at exactly the same point on every line.

When selecting column text in this way, you may sometimes need to select the tab characters which define your columns (that is to the left or right of your column). To include them, make sure that the "white space" produced by the tabs is also selected.

When you paste text that was cut or copied with rectangular selection, the first line of the selection is inserted at the insertion point and the rest of the lines are inserted on the lines below at the same number of characters in from the left line wrap. No filler spaces are added, so if

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the lines below the first are not as long (as illustrated in the difference between line one and the remainder of the lines in Figure 4-11 B), the rectangular selection will no longer appear as a column. Similarly, if there is no carriage return below the insertion point, the entire rectangular selection will be pasted into one line.

To paste a rectangular selection there must be an insertion point, rather than a selection. Figure 4-11 A shows a column being selected and copied onto the Clipboard. In Figure 4-11 B, the insertion point was placed before the first line (before *Nisus*) and then the column was pasted.

Nisus allows rectangular selections.
Rectangular selections can be cut.
Rectangular selections can be pasted.
Rectangular selections contain columns.
They can be edited on the Clipboard.

100.01 Nisus allows rectangular selections.
85.29Rectangular selections can be cut.
B. 95.82Rectangular selections can be pasted.
80.00Rectangular selections contain columns.
99.99They can be edited on the Clipboard.

Figure 4-11 A. Selecting a column B. Pasting the column

Nothing can be pasted or typed while a rectangular selection is active (highlighted).

The Intelligent Cut and Paste feature does not work with rectangular selections. Furthermore, rectangular selections cannot be pasted into dialog edit boxes.

## **Noncontiguous Selection**

You can select items on the text layer that are not next to each other and have your editing choices affect all of the selected text as illustrated

in Figure 4-12. This is called Noncontiguous Selection. Press the Command and Option keys, then select a word, a line, a paragraph, and/or a Character Graphic.

While you can select Character Graphics as well as text, the menu commands in Font, Size and Style (except Color) will not affect their appearance.

Certain commands are disabled during noncontiguous selection:

In the Edit menu:

- Paste
- Move Left
- Move Right
- Sort 9
- Break Lines
- Zap Gremlins

(and their modified commands).

#### In the **Tools** menu:

- Copy to Find
- Mark Text...
- · Cross Reference...
- Hyphenate
- all the commands in the Edit Tools submenu
- in the **Display** submenu:
  - Document
  - Headers/Footers
  - Footnotes
- in the Glossary submenu:
  - Expand Abbrev...

In the Format menu, the only commands enabled are Update Time & Date, Set Date & Page #Formats..., Mark Index, Make Index, Mark Contents and Make Contents....

Entering text from the keyboard is disabled when noncontiguous items are selected.

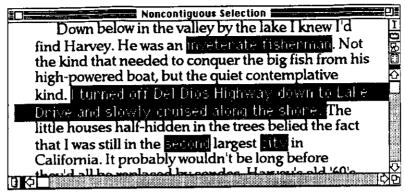


Figure 4-12 Noncontiguous Selection

This form of selection also works in the Catalog. You can select a variety of files in a particular folder that are not next to each other and then open them, add them to your search list, or copy their names.

## **Undo Command**

When you make a mistake, you always wish that you could just undo it: put back the deleted text or graphic, or change the formatting back to the way it was. As you work in Nisus, your changes are stored sequentially in a list called the *Undo List* in the order you made them—just in case you want to undo them later.

When multiple documents are open, the changes to all of them are held in the same undo list. Therefore, you may not be able to undo a change to another document without undoing the changes you just made to the current document. When you close a document, all the changes made to it are removed from the undo list. They are not saved with the document. The order of the remaining changes in the undo list is not changed.

- Initially, the undo list is empty. It is preset to remember up to 300 changes. You can change this number as explained in Editing Preferences, page 443.
- By making the number of undos smaller, you can reduce the amount of memory required by the undo list. This may be necessary to edit larger documents.
- You can clear the undo list, thereby freeing up memory, by choosing **Undo** while pressing the Option key. The **Undo** command changes to **Clear Undos...** and you get the warning dialog illustrated in Figure 4-13.

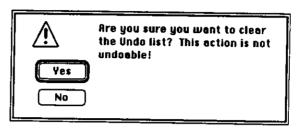


Figure 4-13 The Clear Undos Warning Dialog

The undo list is not saved when you quit. It starts empty when you open Nisus, and as you make changes, it grows.

# **Undoing Changes**

To undo a command, choose **Undo** from the **Edit** menu. To undo the command before that, choose **Undo** again. You may continue doing this up to the number of actions that are in the undo list.

## **Redoing Changes**

Not only can you undo your previous actions, you can also redo them. **Redo**—the opposite of **Undo**—undoes your undo. It puts your commands back into effect. You can continue redoing all the commands in the undo list until it is empty. The *Redo list* is remembered as long as you do not make any editing changes to the text. You can

**Undo** and **Redo** any number of times, but as soon as you resume editing your document, the Redo list is cleared. The Undo list continues to accumulate the new commands you make.

To help you visualize these Undo and Redo lists, imagine that the process of preparing your document is like a walk across an open field with many branching paths. Refer to Figure 4-14. You can take any path you like. Having gone a certain distance along the path ABCD in the figure, you change your mind and want to go back to the point B which you passed. That is what **Undo** allows you to do.

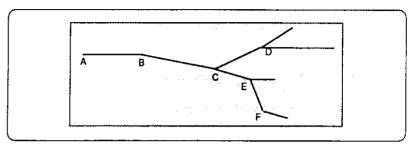


Figure 4-14 Undo and Redo paths

Imagine now that you have gone back to B, you find you have gone back too far and want to retrace your original path to C. That is where **Redo** helps you. Suppose now that you end up at C (having redone part of the original path) and start on the new path CEF, (by making changes to the document). Immediately, the rest of the original path CD is forgotten - the Redo list is cleared before the path to E begins. The new undo list, however, can get you back along any portion of the path ABCEF.

## **Undo Command Keys**

The keyboard equivalents for the **Undo** and **Redo** menu items change when **Undo** is chosen. In fact, they are swapped. If you wish to undo several actions at once by using a keyboard equivalent, first use **%Z**, then use **\Omega \mathbb{R}Z** (Command-Shift-Z) for subsequent undos. Note the difference between the shifted and unshifted **Z**.

If you prefer, you can set **Undo** and **Redo** to two different Command keys. For example, you may set **Redo** to **%Y** while keeping **Undo** as **%Z**. When you do this, the Command key equivalents are not swapped as before. **%Z** always means **Undo** and **%Y** always means **Redo**. You can also make Command-Shift-Z always mean **Redo** by not assigning it any key. See page 452 to learn how to set Command keys.

# Clipboards

Clipboards temporarily store copied (or cut) text and/or graphics. You can

- Place a single character or an entire document on the Clipboard
- Edit text you have put on your clipboard
- Transfer text or graphics from another application into Nisus.

Nisus understands the MacWrite Clipboard format, so when you use this feature you can transfer text along with its attributes. Read about the MacWrite Clipboard under Editing Preferences page 443.

Nisus allows the standard **Cut**, **Copy** and **Paste** operations using any of its ten clipboards.

While you can store many different items on the various clipboards, only one clipboard is active for cutting and pasting at a time. This clipboard is called the Current Clipboard. If the Current Clipboard is other than Clipboard 0, the Current Clipboard icon followed by the number of the current clipboard will appear on the right hand end of the Info Bar.

# **Cutting, Copying, Appending and Swapping**

When you select text and then choose **Cut** or **Copy** from the **Edit** menu, the selected text is placed in the current Clipboard, replacing whatever was there. The current clipboard number is displayed in parentheses beside the **Set Clipboard** menu command at the bottom

of the **Edit** menu and in the upper right corner of the Info Bar, as well as in the title bar of the clipboard when it is showing.

Choose **Copy** from the **Edit** menu to copy the selection onto the Clipboard. **Copy** will not alter the selection. Choosing **Cut** from the **Edit** menu will remove the current selection and place it on the Clipboard. All other clipboards are unaffected. The insertion point will then appear where the selection was removed.

In Nisus you can add multiple selections to the existing contents of the Clipboard. This is useful for gathering noncontiguous text on the Clipboard. To append the selection to the current Clipboard, hold down the Shift key while choosing Copy or Cut. You will notice that the menu commands names change to Append Copy and Append Cut respectively when the Shift key is pressed.

To swap the selection with the contents of the current Clipboard, hold down Shift while choosing **Paste** from the **Edit** menu. You will notice that the menu command name changes to **Swap Paste** when the Shift key is pressed.

- If you choose **Copy** when no text is selected, the last deleted text will be copied to the Clipboard.
- If you choose **Copy** while holding down the Option key you can clear all the clipboards. Notice that the menu command name changes to **Clear Clipboards** when the Option key is pressed. This might be done if you are trying to free up memory.

## **Pasting**

After you have copied something to the clipboard you can then insert, (or paste) it back into your document. To insert the contents of the Clipboard into your document, choose **Paste** from the **Edit** menu. When in text mode, this will insert the Clipboard contents at the insertion point. If a graphic is on the Clipboard, it will be inserted as a graphic character. See Character Graphics, page 236.

When on graphics sheets, you paste text from a clipboard into a text box. Read about text in graphics on page 249. All the text in a text box has the same attributes, so the pasted text will have the same font, size, and style. If you have not created a text box and you try pasting text in the graphics sheet, nothing will be pasted.

To create text with various font, size and style as well as ruler attributes use the Place commands as explained in Desktop Publishing and HyperText Links Using Page Graphics, page 291.

## Multiple Clipboards

There are ten identical clipboards to use while editing. Only one of them is current and will be affected by <code>Copy</code> and <code>Cut</code> operations. This is called the Current Clipboard. You may change the Current Clipboard by choosing its name from the <code>Set Clipboard</code> (0) submenu. You may display the Current Clipboard by choosing <code>Show Clipboard</code> from the <code>Edit</code> menu. If you are doing a lot of clipboard swapping you should probably assign Command key equivalents to the various clipboards. See <code>Assigning Command Keys</code> to <code>Menu Commands page 452</code>.

It is especially convenient to use clipboards as temporary storage for frequently used text or graphics or even rulers. The multiple clipboards are especially useful in copying between different Glossary or Macro files.

You can also access all ten clipboards from the Nisus Macro Language. For information about using clipboards with macros, see Edit Menu Commands, page 411.

If the Current Clipboard is one other than Clipboard 0, and the Sync. Scrolling Indicator (12) is not showing, the Current Clipboard icon and the relevant number will appear at the right edge of the Info Bar: "18."

When the Clipboard is showing the **Set Clipboard** (?) submenu is available by pressing the Option or Command key and clicking on the Clipboard title bar as illustrated in Figure 4-15.

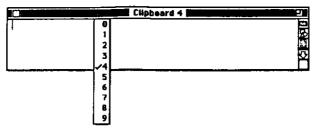


Figure 4-15 An open clipboard with the Set Clipboard submenu

## **Editing Clipboard Contents**

Clipboards can be edited. Choose **Show Clipboard** from the **Edit** menu, then edit as in any other document window.

Drawing on the clipboards' graphics sheets, if there is no text present, is not recommended. You will not be able to paste the graphic unless you attach it to a return character.

## **Moving Selection**

The Cut, Copy and Paste commands in the Edit menu are used to move selections around.

To move a selection (the selected text will be deleted):

- 1. Choose Cut.
- 2. Place the insertion point where you want to insert the selection.
- 3. Choose Paste.

To insert a second copy of a selection (the selected text will remain in its original location):

- Choose Copy.
- 2. Place the insertion point where you want to insert a copy of the selection.
- 3. Choose Paste.

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# Formatting Paragraphs using Rulers

A Nisus document consists of one or more paragraphs. A paragraph starts at the beginning of the document (the first paragraph) or after typing a return character, and it ends at the end of the document or after typing a return character.

A blank or empty paragraph results when a return character follows another return character with no visible text in between. There may, however, be spaces or tabs between the two returns. Nisus treats empty paragraphs like any other non-empty paragraph. The one exception to this rule occurs when you choose **Get Info...** from the **File** menu in order to count paragraphs for statistical purposes. In that case, though paragraphs with nothing but graphics are counted, all empty paragraphs are ignored.

Paragraph formats are controlled by rulers. As you type text, the most recent ruler controls the format of all following paragraphs until the next ruler is inserted.

When you change the format of a paragraph, you change the settings of a ruler. A ruler can apply to a single paragraph or many paragraphs.

Click the Show Paragraph Rulers icon in the top left of the Master Ruler to show the rulers. All rulers appear in the left margin, opposite the paragraphs which they affect.

Paragraph format includes first line indent/outdent, left and right line wrap boundaries, tabs, line spacing, paragraph spacing and justification.

# Paragraph Line Wraps And Tabs

#### Paragraph Line Wraps

The left and right indicators  $\uparrow$  set the points on the left and right where the lines of your paragraphs will "wrap" as in Figure 4-16. The first line indent/outdent  $\uparrow$  indicator determines where the first line of a paragraph will begin. Drag these indicators along the Master Ruler to change their settings.

Figure 4-16 shows the first-line indent set to the right of the left line wrap indicator. This indents the first line of the paragraph. You can swap its position with the left line wrap indicator to achieve a hanging indent.

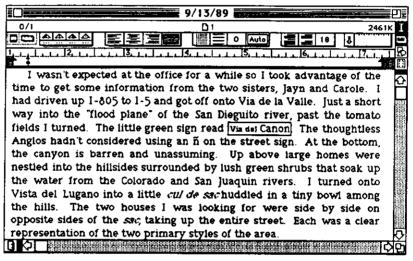


Figure 4-16 The Left and Right Line Wrap Indicators extended to the Margin Limits

You cannot move the line wrap indicators nor the first-line indent into the gray regions which represent the margin limits as illustrated in Figure 4-16. If you need to move the indents out farther, you can reduce the gray region by setting page margin limits in the Layout window. Refer to Layout Page..., on page 135. Note, however, that you cannot exceed the printer limits.

When you have paragraphs of different formats selected, the Master Ruler shows the format of the first selected paragraph. To change the paragraph indents of all paragraphs selected relative to their current position, hold Shift while making your changes to the Master Ruler. Without holding Shift, the changes will be absolute. That means, the hanges will be the same for all paragraphs. For example, if you change the left paragraph indent, it will move to the same position for all selected paragraphs.

#### Tab Stops

Tabs are used to align columns of text. Pressing the Tab key lines up the text that follows at the next tab indicated on the ruler. Four types of tabs can be placed on the ruler. As illustrated in Figure 4-17, these types differ in the way they justify the text:

text is aligned left on a left tab stop
center tab
right tab
decimal tab

text is aligned left on a left tab stop
text is centered beneath a center tab stop
text is aligned right on a right tab stop
decimal tab

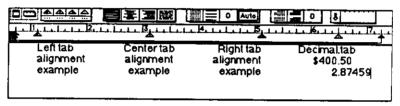


Figure 4-17 Tab stop justification

To set a tab stop on the ruler, click and drag it from one of the four tab wells, \( \begin{align\*} \begin{alig

#### Leader Tabs

You can change the character that is used for the leader. Double-click the tab icon on the ruler whose leader you want to change. You will see the dialog shown in Figure 4-18.

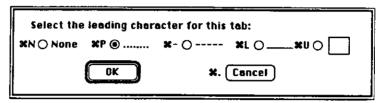


Figure 4-18 Changing an individual tab leader

You can select one of the predefined leaders shown or type a character of your own in the box on the right.

To change the leader for *all* tabs you subsequently take from the tab wells, double-click the leader bar. You will get the dialog illustrated in Figure 4-18 except that you may not choose **None**.

You may change the leader setting at any time. However, when you do, the tab wells are converted to leader tab wells.



Figure 4-19 Tab stop justification with leader tabs

# Paragraph Justification



Figure 4-20 The Paragraph Justification boxes with full justification selected

You can specify how the individual lines of a paragraph will be aligned with respect to the left and right line wrap indicators. The choices are left, middle, right and full justification as illustrated in Figure 4-20.

Left and right justification aligns text with the left or right paragraph indent, respectively. See Figure 4-21 and Figure 4-23 respectively for these two justification options. Middle justification centers text between the two line wrap indicators. This is illustrated in Figure 4-22.

Full justification justifies text by adjusting spaces, so text is aligned on the left and the right paragraph indent. The first and last word of each line touches the left and right line wrap indicators. The last line in a paragraph is not fully justified. This method of justification is illustrated in Figure 4-24.

Paragraph Justification affects the text of that paragraph in which the insertion point resides, or whatever greater number of paragraphs have been selected, or, if a Paragraph Ruler has been selected, whatever text that ruler controls.

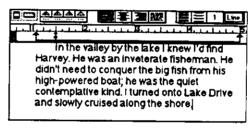


Figure 4-21 Left Justification

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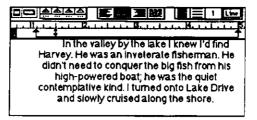


Figure 4-22 Center Justification

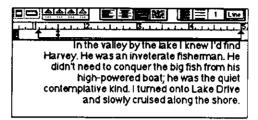


Figure 4-23 Right Justification

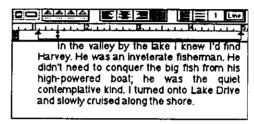


Figure 4-24 Full Justification

If a text is in full justification it will hyphenate more than if it is in any of the other justification modes.

#### The New Line Character

You can enter a new line character (which appears as:  $\omega$  when you choose **Space**, **Tab** & ¶ from the **Display** submenu of the **Tools** menu). This forces a new line without beginning a new paragraph. Type Shift-Enter to force a new line. This is useful when you want to force a new line but do not want it to obey the indent (or outdent) setting of your ruler. This is also useful for separating lines of a paragraph which you may want to sort by the beginnings of paragraphs as illustrated in Figure 4-58 on page 121.

The new line character is also variously known as a "forced line feed character" and a "soft return."

# Line Height



Figure 4-25 The line height box

Line height refers to the actual height of a line, not the space between lines. The lines affected by "Line Height" are those of the paragraph in which the insertion point resides, all the selected paragraphs, or those paragraphs controlled by that particular Paragraph Ruler. A setting of 0 in the number box indicates that no extra space will be added.

You may set the line height method three different ways by clicking on the icon at the right edge of the Line Height Box (illustrated in Figure 4-25): automatic (Auto), fixed (Fix) or by standard line heights (Line). The three options rotate one after the other.

A line is measured in points, or pixels, depending on the size of the font used.

You can increase or decrease the height by clicking the expand icon to increase line height) or contract icon to decrease line height) boxes or by typing a value in the number box 0. When the height between lines can be decreased no further, the decrease icon is dotted:

Muto means that Nisus maintains enough space between lines to display the tallest character on that line. If you insert a graphic or a character of a font size larger than the remainder of the text on a particular line, Nisus will automatically spread that line so that the characters do not overlap. This option is illustrated in Figure 4-26.

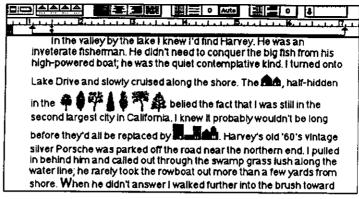


Figure 4-26 Automatic Line Height

Fix means that Nisus will maintain a fixed amount of space between lines regardless of the various heights of the characters on that line. If you insert a graphic or a character of a font size larger than the remainder of the text on a particular line, Nisus will allow the various characters to overlap. This option is illustrated in Figure 4-27.

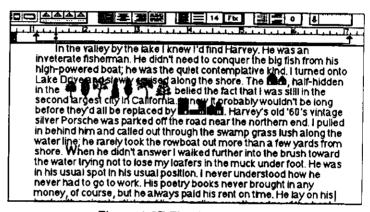


Figure 4-27 Fixed Line Height

When your method is set at fixed or automatic, the value in the number box is understood in points.

Line means that Nisus will keep your lines a certain standard linespace from each other. This is the option most like the mechanical method of spacing lines on a typewriter. The distances available in the line option are set to half-line increments. This option is illustrated in Figure 4-28.

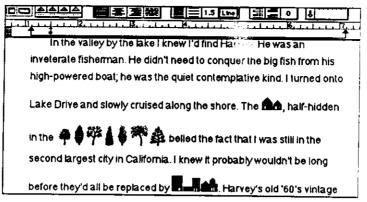


Figure 4-28 Line Height By Line

- When the method is set at line, the value in the number box is understood to refer to lines.
- If you have set your line height method at Auto, you may not see a change in the spread of your lines until a pixel or two beyond the size of your font because the Macintosh takes into account the "descenders," "ascenders," and spaces between the lines when counting the height of a line.

# Paragraph Spacing



Figure 4-29 The Paragraph Spacing box

The Paragraph Spacing box, illustrated in Figure 4-29, enables you to affect the spaces between paragraphs. Paragraph spacing refers to the height of the lines between paragraphs. The space is added above the paragraph in which the insertion point resides. The paragraphs affected are those in which the insertion point resides, all the selected paragraphs, or those paragraphs controlled by that particular Paragraph Ruler.

A setting of "0" inserts no extra space. Each setting higher than this inserts additional space between paragraphs.

Paragraph Spacing and Line Spacing function interactively. When Line Spacing is set at Auto and Fix, Nisus will increase or decrease the spacing between paragraphs in one pixel increments (the value in the number box refers to pixels). When Line Spacing is set at Line, Nisus will increase or decrease the spacing between paragraphs in half-line increments (the value in the number box refers to lines).

# **Changing Rulers**

The ruler display at the top of your document is called the Master Ruler. It displays, and is used to change, the format of the current paragraph. The current paragraph is that one in which the insertion point appears or the one that has its paragraph ruler in the left margin display selected.

When paragraphs with different formats are selected, the Master Ruler shows the line wrap and first line indent, line height and paragraph spacing of the first selected paragraph and those other formats (tabs and justification) that they share in common.

Changing any of the above format attributes when dissimilar paragraphs are selected replaces any conflicting attributes. For example, you can set uniform line height for a group of paragraphs by selecting them and then changing the line height.

If the paragraph indentation differs for selected paragraphs, the indicators on the Master Ruler reflect the indentation of the first selected paragraph. Changing an indent will set it to be the same for all selected paragraphs. To move an indent relative to its current position, press Shift while changing it. This is illustrated in part C of Figure 4-30.

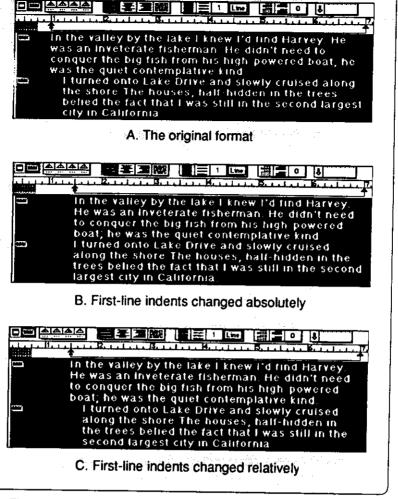


Figure 4-30 Changing paragraph indents for different formats

The first paragraph indents are reflected on the Master Ruler in parts A, B, and C of Figure 4-30.

In part B, the left indent and the first-line indent indicators are moved to 1.5" without the Shift key pressed. This sets both indents for every selected paragraph.

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In part C, the Shift key was pressed while dragging the indicator to 1.5" (the same distance as in part B). This moved the first-line indent the same amount to the right (.25") for each selected paragraph.

# **Changing Similar Rulers**

#### Change Similar Rulers in Region

To change all copies of a ruler in a selected region, hold the Command key down while making the change in the master ruler. All copies of the first ruler of that region will be changed the same way.

#### Change All Similar Rulers in the Document

To change the format of all paragraphs controlled by a particular ruler, place your insertion point in a paragraph controlled by that ruler, press the Command key and make the changes on the Master Ruler.

- This is useful if you have different paragraph formats in a document and decide to change one of them. You can change all copies of that format to reflect the desired change.
- You can also change all similar rulers by using named rulers and changing the attributes of any particular named ruler (see Named Rulers, page 100).

# **Creating Rulers**

When you open a new document it contains one ruler. As long as you do not change any paragraph formats all paragraphs you type are formatted according to this ruler. The Master Ruler displays the format of the current ruler across the top of your document window. The current ruler is the one controlling the current paragraph, which is the paragraph of your insertion point.

When you change the format of a particular paragraph by changing the Master Ruler while leaving the insertion point in tat paragraph, a new ruler is placed, if necessary, after that paragraph. This is called a Protective Ruler. You can change a single paragraph in this manner without influencing all the subsequent paragraphs.

For a step by step illustration, use one of the sample documents supplied, or create your own, and do the following:

- Make sure the Master Ruler is showing. If it is not, then choose Master Ruler from the Display submenu of the Tools menu, or click the Show Master Ruler icon in the Vertical Scroll Bar.
- 2. Click the Show Rulers icon on the top left of the Master Ruler.
- 3. Find a paragraph that has no ruler immediately at its beginning or at the beginning of the following paragraph. For the purposes of this illustration this should not be the last paragraph of the document. Remember that, when dealing with rulers, a blank line is also a paragraph!
- 4. Place your insertion point anywhere within the paragraph.
- 5. Make a ruler change. For example, drag or add a tab stop on the Master Ruler. Watch how two rulers are inserted, one at the beginning of the paragraph, the other at the beginning of the next one.
- 6. Now, without moving the insertion point, make another change to the Master Ruler by moving or adding a tab.

Notice that now no rulers were added. Any further changes to that paragraph do not insert rulers.

The first ruler is inserted to impose the new format and the second ruler continues the format that was previously in effect. Neither ruler is inserted if a ruler already exists or if it is the last paragraph of the document.

Using the same file, return it to its original state by choosing **Undo** twice. Place your insertion point in the first paragraph of the document and repeat steps 4 and 5 above. This time, because there was already a ruler at the top of the file, only the second ruler will be inserted.

For the last illustration, select the ruler at the beginning of the second paragraph in the document (make sure the document has more than two paragraphs) and repeat steps 4 and 5 above. Note that this time no rulers were inserted. This means that the second paragraph and all subsequent paragraphs, up to the next ruler, are affected by the format change.

You can change the format of a paragraph ruler without having a new ruler inserted at the next paragraph. To do this, select the paragraph ruler (it should be visible) and make the changes to the Master Ruler as illustrated above. Alternatively, click anywhere in the paragraph and press Option while making the changes to the Master Ruler. This latter method is applicable even if paragraph rulers are not visible.

You can place a copy of the current ruler in front of the current paragraph by choosing **Insert Ruler** from the **Format** menu.

# **Inserting Protective Rulers**

Quite often you want to copy a ruler format from one paragraph to another without affecting any other paragraphs. To do this rulers can be copied and pasted. Before you paste the ruler with the new format to your paragraph, you need to insert a "Protective Ruler" at the next following paragraph so that its format is not changed. Do the following:

- 1. Select and copy the new ruler which you want to paste in front of a paragraph.
- 2. Move your insertion point to the beginning of the first paragraph which you do not wish to be affected by the new ruler format.
- 3. Choose **Insert Ruler** from the **Edit** menu. This inserts a copy of the current ruler, thus not affecting any text format.
- 4. Move your insertion point to the beginning of the paragraph where you wish the new ruler format to apply.
- 5. Paste the ruler.

# **Copying and Pasting Rulers**

When you use the Clipboard to transfer text, you must pay attention to rulers if you want to maintain your original text format. It is best to make the rulers visible when working with documents which contain more than one ruler. In this way, you can see whether rulers are being selected with the text.

Rulers precede the paragraph where their control begins and format all following paragraphs up to the next ruler. If you select and copy text without its formatting ruler, and paste it in a part of the document with a different format, it will not retain its formatting. The pasted text will take on the formatting of the surrounding text.

If you want the format of the paragraph to be preserved, include the ruler in the selection. When you choose <code>Copy</code> or <code>Cut</code>, only rulers in the current selection are copied onto the Clipboard. When you choose <code>Paste</code>, remember that the last ruler pasted will affect all paragraphs up to the subsequent ruler, unless you insert a protective ruler before the paste. Select a ruler by clicking on it. You can then cut, delete, or copy it. You can replace one ruler with another by selecting the current ruler and choosing <code>Paste</code>. It will be replaced by the ruler that was previously copied onto the Clipboard. Rulers can only be replaced by rulers. If you have text on the Clipboard and a ruler is selected when you paste, the text will be added just after the ruler—at the beginning of the paragraph.

If you want to have several predefined ruler formats to use in your document, you can create a macro for each format. See Chapter 14: Working with Macros for more details.

#### **Named Rulers**

Paragraph rulers can be named. All rulers with the same name will share the same attributes. To name a paragraph ruler, either select it or place your insertion point in the paragraph and then click in the Ruler Name Box illustrated in Figure 4-31 the name you wish to use then set the ruler attributes you wish to have for that ruler. When you finish, press the Enter key or click the mouse back in your document. If you named a ruler you can find that name and select

that ruler from the pop-down menu by clicking on the down arrow to the left of the Ruler Name Box as illustrated in Figure 4-32.

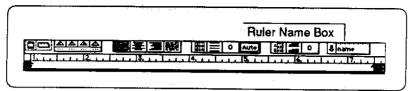


Figure 4-31 The Master Ruler's Ruler Name Box

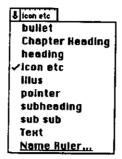


Figure 4-32 The Named Rulers Menu

To have another paragraph share those same attributes, place your insertion pointer in that paragraph or select the ruler that controls it, click your mouse in the Ruler Name Box and type in the name of the desired ruler. When you press Enter or click back in the document window, the ruler's attributes will take effect.

A named paragraph ruler will have a line in it while an unnamed paragraph ruler will be plain.

# Re-naming, Deleting & Finding Rulers

The last menu command on the named rulers pop-down menu shown in Figure 4-32 is the **Name Ruler...** command. It can be used to rename existing rulers, to delete named rulers, and to find the next occurrence of a named ruler.

To do any one of these things choose **Name Ruler...**. The dialog illustrated in Figure 4-33 appears.

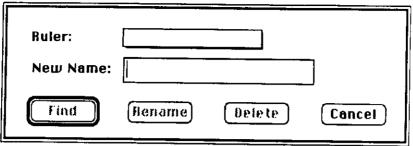


Figure 4-33 The ruler Renaming Dialog

The top shadowed box is a pop-down menu with all the existing ruler names. Click on it and the menu shows all the named rulers as illustrated in Figure 4-34. Select the ruler you want to rename. Its name is shown in this box. Type in the new name into the edit box shown and click Rename. This renames all occurrences of the chosen ruler to the new name.

To delete the chosen ruler click **Delete**. When a named ruler is deleted its name is removed from the named ruler menu. Any ruler with that name in the document, will remain with the same attributes but will become unnamed.

To find the next occurrence of the chosen ruler, click the button. The next ruler with that name is selected.

You can also bring up this dialog, with the name of the chosen ruler already entered, by selecting the ruler name from the named rulers pop-down menu Figure 4-32 while holding the Option key.

You can quickly find the next ruler with a given name by selecting its name from the named rulers pop-down menu Figure 4-32 while holding the Shift key.

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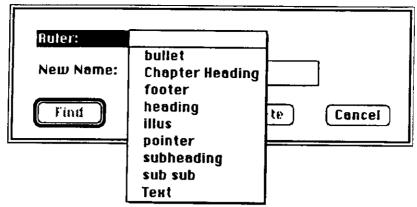


Figure 4-34 The ruler renaming dialog pop-down menu.

- Another way to name all similar rulers that already exist is described in Changing Similar Rulers, page 97. Select the ruler to be named, type the appropriate name in the Ruler Name Box, then press the Command key as you press the Return or Enter key.
- You can paste named rulers from one document to another. If, however, you have rulers in each document that share the same name, but have different attributes, the existing document's ruler will override the attributes of the ruler being pasted.

# **Text Attributes**

Nisus allows a wide variety of fonts, sizes and styles. These are called text attributes. You can change text attributes with the **Font**, **Size** and **Style** menus. Attribute changes apply only to the currently selected text.

If there is no selection, the changes will apply to the next text you type at that insertion point. New characters typed from the keyboard generally inherit the attributes of the character immediately preceding the insertion point. If you change attributes at the insertion point and type no text, the changes will not be recorded.

#### **Font**

All available fonts are displayed in the **Font** menu as illustrated in Figure 4-35. The currently selected font is preceded by a check mark. The available sizes for the current font are displayed in <code>DOCOTIONO</code> style in the **Size** menu. Any size can be chosen, but if it does not exist, the closest one will be scaled to the desired size. This, however, causes distortion and slows down screen updating. To add additional fonts or sizes, use the Font/DA Mover supplied with your Macintosh and refer to your Macintosh Owner's Guide for instructions.



Figure 4-35 The Font menu

- An open document containing fonts not in the current system will show their names italicized in the **Font** menu. You may edit with them, however they will display and print as Geneva in the document, until you add the missing fonts to your system.
- You can display the fonts you have in your system on your Font menu in their actual fonts, as illustrated in Figure 4-36. Press the Option key either before you pull down the Font menu or at any time while the menu is open.

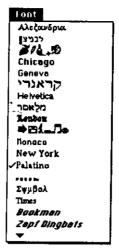


Figure 4-36 The Font menu with the Option or Command key pressed

#### Size

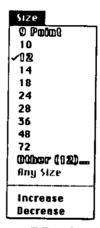


Figure 4-37 The Size menu

Using the **Size** menu, illustrated in Figure 4-37, you can set the size of your text to any whole point size from 1 through 255. The text

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size may be set to a value that is not displayed in the menu by choosing **Other** and typing the points size into the dialog illustrated in Figure 4-38. In addition, **Increase** and **Decreas** anges the font size in 1 point increments.

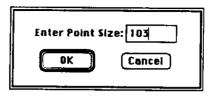


Figure 4-38 The Other size dialog

# Style

You will find the most common styles in the **Style** menu. The other supplied styles are available in the **More Styles** submenu as shown in Figure 4-39.

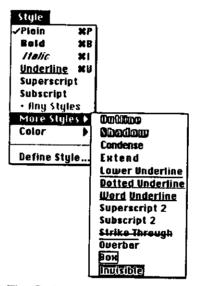


Figure 4-39 The Style menu and More Styles submenu

Styles can be combined. Select the text you wish to change, then make any number of selections from the **\$tyle** menu. Some styles

cannot apply to the same text at the same time. **Extend** and **Condense**, for example, have opposite effects and cannot be active at the same time.

- Plain cancels all other styles when applied. When particular styles are chosen that are not compatible with already applied styles, the earlier style is removed from the selected text. The most recently chosen style prevails.
- The underline styles can be combined. A double underline can be achieved by applying both **Underline** and **Lower Underline**. **Word Underline** removes all underlines from the white space between words. When you have an underline style applied, **Underline** will be checked along with any of the variations, such as **Word Underline**. If you uncheck **Underline**, all underline styles will be removed.

Superscript and Subscript: Two Levels

Nisus gives you two levels of the **Superscript** style and two levels of the **Subscript** style. These styles are particularly helpful when working with mathematical or scientific equations. Characters typed in any of these styles are automatically proportionally sized for best appearance. The second levels can be used with either **Superscript** or **Subscript**, or they may be used individually. Note that when **Superscript** 2 is checked, **Superscript** or **Subscript** is also checked and when **Subscript** 2 is checked, **Subscript** or **Superscript** is also checked.

Second level **Superscript** and **Subscript** are for advanced users. Nisus does not always update the second level of **Superscript** or **Subscript** on the screen immediately. Printing however, is not affected by this when using the ImageWriter or a PostScript printer. You can force Nisus to update the screen by clicking the zoom box.

# Nisus Nisus Nisus Figure 4-40 First level Superscript and Subscript together

Nisus Nisus Nisus Figure 4-41 Basic text with Superscript 2

Nisus Nisus Nisus

Figure 4-42 Basic text with Superscript and Superscript 2

Nisus Nisus Figure 4-43 Basic text with Subscript 2

Nisus<sub>Nisus<sub>Nisus</sub></sub>
Figure 4-44 Basic text with Subscript and Subscript 2

Nisus<sub>Nisus</sub>Nisus
Figure 4-45 Basic text with Subscript and Superscript 2

Nisus Nisus Nisus Figure 4-46 Basic text with Subscript 2 and Superscript 2

Nisus Nisus

Nisus Nisus Nisus Pigure 4-48 Basic text with Superscript 2 and Subscript 2

Nisus Nisus Nisus Nisus Nisus Figure 4-49 Superscript, Superscript 2 and Subscript 2

$$x_n \cos e^{-x_2} \int_0^\infty e^{-x_2^2} (x_{n^2} x^{n^2})^{n^2} dx$$

Figure 4-50 Basic text with all levels combined in a variety of ways

First level **Superscript** and **Subscript** are mutually exclusive and cannot be applied together. You cannot superscript a subscript or subscript a superscript using the first level as these apply only to the basic text style as illustrated in Figure 4-40. Using the second level, you can superscript a superscript or subscript a superscript, or subscript a subscript or subscript a subscript as illustrated in Figure 4-41 through Figure 4-50.

#### Invisible

The Invisible style allows you to place invisible notes in your document. When you wish to display them, choose Invisible Text from the Display submenu of the Tools menu. To hide the invisible text choose Invisible Text again.

#### Color

The **Color** menu offers eight colors. **Color** styles can be combined with other styles. Colors can be used to mark, search and replace text. On a monochrome monitor it is still possible to search for text formatted (though, obviously, not visible) in a particular color. **Color** text will not function on the Graphics Sheets. The **Color** submenu is shown in Figure 4-51.

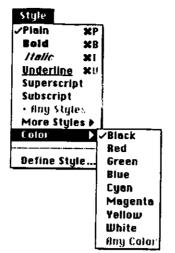


Figure 4-51 The Style menu and Color submenu

# **User Styles and Style Sheets**

A style sheet is a collection of user defined styles consisting of font, size, style, ruler and other possible attributes to which you give a name. That name appears at the end of the **Style** menu. You can create many such named styles. Once created, they can be used just like the regular styles to format text.

For example, if you create a new style called **Heading** which combines the **Bold** and **Underline** with the Palatino font, a new style with the name **Heading** appears on the **Style** menu. If you then select some text and choose **Heading**, the text will become <u>Palatino</u>, <u>Bold</u>, <u>Underline</u>. If the selected text has some other style attributes which do not conflict with those of the **Heading** style, they will remain. Thus if the original text was in *Geneva Italic*, it becomes <u>Palatino</u>, <u>Bold</u>, <u>Underline</u>, <u>Italic</u>.

You can format text in the **Heading** style, and later edit the user style. All the text in this style will automatically be changed to reflect the new user style.

#### Creating User Styles

User styles in Nisus can be defined on a character level, paragraph level (also known as style sheets) and/or document level. Document level user styles are created as Nisus Stationery files explained on page 64. Nisus Stationery files can contain combinations of character and paragraph level user styles as well.

To create a user style on the character level, choose **Define Style...** from the **Style** menu. The **User Style** dialog is displayed as shown in Figure 4-52. You can set the attributes of the user style by choosing from the menus or by checking the check boxes in the dialog.

You can make any character level user style a paragraph level user style if you have given names to any rulers. Simply add that ruler's name as one of the attributes of a character level user style by typing its name in the Ruler Name box. You can also determine the attributes of the following paragraph's ruler by typing the name of that ruler in the Style of Next ¶ box.

Give the user style a name and click Done. The name of the user style appears at the bottom of the **Style** menu. You can now apply it to text just like any other style.

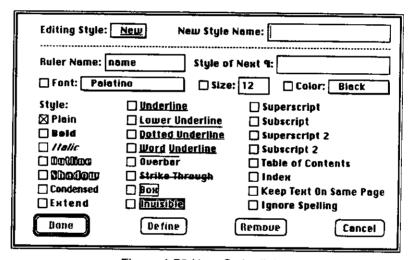


Figure 4-52 User Style dialog

The following sections discuss rules for applying user styles, and overlapping them with the standard styles.

#### Applying User Styles

To apply a user style to selected text, choose the user style from the Style menu. All the attributes of the user style will be applied to the text. When you click in a region of text which contains a user style, a check mark is placed by the user style menu item.

You may overlap user styles. The attributes of user styles are added together, but the font and size of the last user style applied are used.

For example, create two user styles—one that contains <u>Underline</u> and <u>Cursive</u> and another that contains <u>Underline</u>. Bold and <u>Venice</u>. Now apply these two user styles to the same text. All the stylistic attributes are added together, but the text takes on the font and size of the last applied style. Figure 4-53 shows an example of applying one of these user styles to overlap another; the <u>bold</u>. <u>underline</u> and <u>Venice</u> user style is applied first and then <u>underline</u> <u>Cursive</u> is applied.

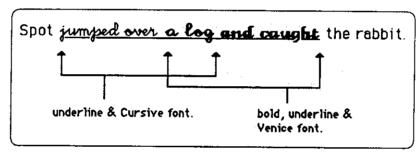


Figure 4-53 Overlapping user styles with Bold, Underline & Venice and Underline & Cursive attributes, respectively

Notice that where the user styles overlap, the text is in Cursive font because this user style was applied second.

#### Changing User Styles

To edit a user style choose the **Define Style...** command which brings up the User Style dialog. Then choose the user style name you wish to edit from the **Style** menu. This action enters the name into the dialog allowing you to edit the style.

Edit the name of the style. Click Done to save your changes.

Cancel will ignore any changes you have made to the style.

For a quicker way to edit a user style: hold down the Option key while choosing the user style name from the **Style** menu. The user style editing dialog opens with the user style entered, ready for editing. This only works with user styles which are used in the active window.

The ability to change a user style is a very powerful feature. It allows you to select certain parts of the document, set them in a user style and be able to change the appearance of that text instantly. Changing a user style only affects the attributes that are specifically linked to that user style. For example, to make the following text:

The dog was scared by the iguana.

stand out, a user style that contains **bold**, New York, and size 1 4 is applied:

# The dog was scared by the iguana.

To make dog and iguana stand out even more, one word is italicized and the other underlined by adding these attributes directly, not using user styles.

# The dog was scared by the iguana.

This text is now bold, New York and size 14, but in order to make it even more prominent, outline and Venice 14 are applied by editing the user style, giving this final result:

# The dog was scared by the iguana.

Notice that when the user style was edited from bold to outline the italicized and underlined text was untouched. All style attributes not associated with the user style are not changed.

- Changes made to a user style cannot be undone using the **Undo** command. Edit the style again to undo any changes you make.
- You can use User Styles to make multiple tables of contents and indexes. The details on how to accomplish this are explained on page 320.

#### Removing User Styles

To remove a user style from text:

- 1. Select the text
- 2. Choose the checked user style from the **\$tyle** menu.

If some of the text you select is not in the user style, then the menu item will not be checked. In this case, choose it twice to remove it. The first time, the whole selection is put into the style; the second time, the style is removed from the selection. Built-in styles perform in a similar manner.

If a selection contains styles that are not in the user style these will not be affected when you remove the user style. For example, if a user style that contains **!inderline** is applied to the following text:

New York is in New York.

it becomes

New York is in New York.

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When the user style is removed from "is in New York", the resulting text becomes:

#### New York is in New York.

Notice how the second "New York" is still italicized. Removing a user style only removes the attributes associated with that user style. An exception to the rule occurs when another user style exists in the selection with the same attributes; in this case, whichever attributes exist in the other style will be preserved.

Font and size are handled a little bit differently. If you remove a user style that contains a font or size, then the text will return to the font and size which was in effect before the user style was applied.

#### Deleting User Styles from a Document

To delete user styles:

- 1. Choose **Define Style...**. This brings up the User Style editing dialog.
- 2. Choose the style you wish to delete from the **\$tyle** menu.
- 3. Click the Remove button in the User Style dialog.

This brings up a dialog as in Figure 4-54 which asks if you wish to remove all attributes of the deleted user style from the text in your document. Click ves or press Return to remove all attributes associated with the user style from the text and the user style name from the document. Clicking No will leave remove the user style name from the document while leaving all text attributes unchanged.

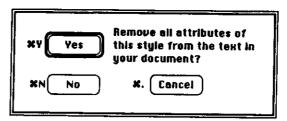


Figure 4-54 You are also asked whether to remove the effect of the user style in the document after removing user style

#### Importing User Styles

User styles are specific to each document, but you may import user styles that have been created in other documents. The style name will show up at the bottom of the **Style** menu preceded by the document name if that document is open and is not the top window. To import the user style, select the text you want to apply the user style to and choose the user style: it will automatically be applied and imported into the style list of the current document. Remember that each document has its own list of user styles, so when you import another user style it is actually copied into the style list of the current document.

If you copy some text that contains one or more user styles and then paste that text into another document, the text will retain those user styles. All the user styles that are associated with the text will be imported into the new document. The only requirement is that the original window must be open during the paste. If the original window is closed, the pasted text will retain its attributes, but it will lose any associations with user styles.

If a user style with the same name already exists in the new window but has different attributes the dialog shown in Figure 4-55 appears.

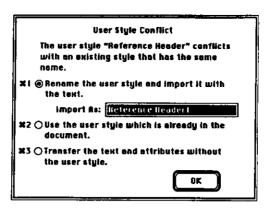


Figure 4-55 User Style Conflict dialog

You then have the following options:

- Rename the user style and import it with the text.
- Use the user style that is already in the document.
- · Paste the text and its attributes without the user style.

If you rename the user style, it will be imported with the new name.

If you use the user style that is already in the document, the text will take on the attributes of that user style. The original user style will not be imported. If you paste the text without the user style, it will retain its attributes, but the user style will not be imported.

#### User Styles as Invisible Notes

By creating a special user style called, for example, Memo, which includes the Invisible style, you can make invisible notes within a document. They can be made visible by choosing Invisible Text from the Display submenu of the Tools menu. They can also be made visible by editing the Memo style and removing the invisible attribute. If, in addition, you use a special style for the Memo style, such as SDadom or Outiling, which stands out from the

surrounding text, the notes will be easy to see when they are made visible. When you want to hide them again, simply edit the Memo user style to include the invisible attribute.

In Figure 4-56 the notes appear adowed when they are made visible. This is because the user style used to create them had both the Shadow and Invisible attribute.

You may also use the **Invisible** style alone, but by using a user style with the invisible attribute you have more control.

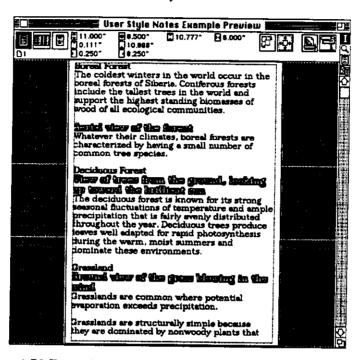


Figure 4-56 Example using Memo user style to position photographs

In addition to their standard function as a tool for formatting documents, Nisus user styles can be used to prevent text in unusual fonts from being flagged by the Spelling Checker, and develop multiple tables of contents and indexes of the same document.

# **Editing Tools**

### **Display White Space**

Sometimes it is desirable to see spaces, tabs and return characters within the document. These are called white space characters, Nisus displays them as symbols as shown in Figure 4-57. This feature is accessed by choosing **Space**, **Tab** & ¶ from the **Display** submenu of the **Tools** menu.

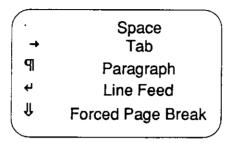


Figure 4-57 White space symbols

The **Edit** menu has many commands which directly affect selected text.

# **Changing Case**

- To change all letters to uppercase choose UPPERCASE
- To change all letters to lowercase choose lowercase
- To reverse the case of all letters press the Shift key and choose Toggle Case
- To capitalize all words in a selection choose Capitalize

Text must be selected when you choose one of these commands, otherwise they will not be enabled. This is a change from previous versions of Nisus.

# Move Text Horizontally

Groups of paragraphs can be moved horizontally. Select the paragraphs to be moved. Choose Move Right or Move Left from the Edit menu. This will insert or delete one tab in front of each paragraph automatically. This is useful when lining up columns with other text. Each time the selected paragraphs are moved, they move to the next tab stop.

Press Shift while choosing Move Right or Move Left to move the paragraphs by inserting spaces, rather than tabs.

# Sort Paragraphs

Nisus lets you arrange paragraphs in alphabetical or numerical order. When you choose the **Sort** ¶ command the current text selection will be sorted. You may sort a list of names by doing the following:

- 1. Type one name per paragraph.
- 2. Select the group of paragraphs containing the names.
- 3. Choose **Sort** ¶ from the **Edit** menu.

The paragraphs will be rearranged so that the names are in alphabetical order. Use the same procedure to sort a list of numbers.

Any selection containing partial paragraphs will be extended to include the entire paragraph. Remember that paragraphs end with a return character. This is important, because the comparisons during sorting start at the beginning of paragraphs. If you want to sort the lines of a paragraph as they are wrapped on the screen, choose **Break Lines** first.

If you have a list of names and addresses with each field on a different line, you can still sort so that only the names are alphabetized, and the addresses stay with the names. Instead of typing a return at the end of each line enter a new line character (by pressing the Shift then typing the Enter key) as illustrated in Figure 4-58. (In order to affect this sort a return character has to be at the top of the list.)

Everton, Benjamin : 4 Belk, Betty ← 17234 Ave. Codira ← San Diego, CA 922189 Mastered Software ← 79 Robertstown Road ← Greensbough, NC:27079¶ Burams, Glenyllis € North Michigan Institute € Apple Orchard Road ← Bright, Jenny ← Cow Magic, Mt 45267¶ 736 Rosy Lane ← Gary, North Carolina 27731 9 Belk, Betty ← Mastered Software ← Burams, Glenyllis ← 79 Robertstown Road ← North Michigan Institute ← Greensbough, NC 270799 Apple Orchard Road ← Cow Magic, Mt 45267¶ Bright, Jenny ← 736 Rosy Lane ← Everton, Benjamin' ← Gary, North Carolina 277319 17234 Ave. Codira ← San Diego, CA 92218¶

Figure 4-58 Sorting Paragraphs using New Line Characters

If the selection contains a mixture of numeric and alphabetic paragraphs then the two groups will be separated by the sort. Regardless of whether an alphabetic or an numeric character appears first in the selection, the sort will be done with the alphabetic entries appearing first and the numeric entries being displayed last.

An ASCII sort can be forced by pressing the Option key and choosing RSCII Sort. This sorts characters by their ASCII values not their alphabetical positions An ASCII sort will force the numeric paragraphs to appear at the top of the list. For example, the alphabetic sort recognizes characters like å to be before b in the alphabet while the ASCII sort does not. å is 8C while b is 42 (ASCII numbering sequence is 00, 02, 03, 04, 05, 06, 07, 08, 09, 0A, 0B, 0C, 0D, 0E, 0F, 10 - 1F, 20 - 2F, 30 - 3F, 40 - 4F, etc.) The ASCII sort also puts all uppercase characters before any lowercase characters. The ASCII sort is noticeably faster than the alphabetic sort when applied to a large selection area. If you press both the Shift and the Option keys while choosing Sort the command changes to ASCII + spaces. This means that the

paragraphs will be sorted by their ASCII code value while ignoring any "leading" spaces in front of them.

Table (choose **ASCII Table** from the **Edit Tools** submenu of the **Tools** menu). Typing a key while the ASCII table is active selects that character, showing you its ASCII code. You can also check the ASCII value of any particular character by selecting it and running the macro **Find ASCII Code** which is in the **Macros for Editing** file. For more information on ASCII and how the ASCII Table works see The ASCII Table page 329.

A numeric paragraph is one beginning with a digit. All other paragraphs are alphabetic.

# **Break Wrapped Lines**

The **Break Lines** command places a return character ¶ at the end of each wrapped line. A return character defines a paragraph and so each line becomes a separate paragraph, this is especially useful when transmitting Electronic Mail. You can break the lines of a paragraph into separate paragraphs. Do this by choosing the **Break Lines** command from the **Edit** menu.

You can also use **Break Lines** to insert a blank line after every paragraph (before breaking lines) in the selection. Do this by pressing Shift while choosing **Break Lines**. The command name changes to **Break Lines** +.

#### **Gremlins**

Characters that are produced using the Control or Option keys are called "gremlins" in Nisus. If you import text from another operating system you may see some "garbage" characters when you edit the text on the Macintosh. These extra characters that are not a part of the text are called gremlins.

Gremlins are usually displayed as  $\square$  which is the symbol for a non-displayable character. To remove gremlins, first select the region of text and then choose **Zap Gremlins** from the **Edit** menu.

- Some gremlins are both visible and useful, such as the bullet which is created by pressing the Option and the 8 while the Option key is still depressed. Many other option characters exist as an extension of the standard ASCII character set. Another helpful character that is considered a gremlin is the character produced when you insert a page break. This is the form feed character that can also be produced from the keyboard by pressing Control-L on the Mac SE and Mac II. Remember that Zap Gremlins will also remove these useful characters. It is therefore best to Zap Gremlins before you begin working with your document, immediately after you import it from another system.
- Note that by using pattern matching with PowerSearch and macros you can write your own **Zap Gremlins** macro which will zap only specified characters.
- Gremlins are defined as any character whose ASCII code ranges are: 0-8, 10-12, 14-31, 127-255. In Helvetica font, Gremlin characters are: ÄÅÇÉÑÖÜáàäääåçéèèëiîĩiñóòôöŏúùûü†°¢£§•¶ß®©™´¨≠Æ∅∞± ≤≥¥μ∂∑Ππ∫<sup>ao</sup>Ωæø¿¡¬√∫≈Δ«»...ÀÃÕŒœ—""'+◊ÿŸ

# **Using Variables**

Nisus provides variables whose values are automatically updated. You can place date or time variables in your document that can be updated on command. You can also insert cross references to other parts of a document, such as figure numbers or chapter titles. These are also updated on command.

Date: 8/1/90 Time: 4:01 PM

Document Name: Chapter 5 Working with Text

Current page number 152

Cross Reference: See Figure 5-26 on page 53

Figure 4-59 Highlighted variables in text

The variables that are available in Nisus are illustrated in Figure 4-59.

Variables appear as normal text. Unless they are highlighted, they cannot be distinguished from the surrounding text just by looking at them. You can highlight all the variables in your document by choosing the Text Hilites command from the Display submenu of the Tools menu. Your variables will then be boxed in dotted lines. Although text placed in the index or in the contents is not a variable, it also appears in a dotted box when Text Hilites is checked.

The page number variable is especially helpful when placed in a header or footer. This will number every page on which the header or footer lies. For more information on page numbering, see Page Numbering, page 168.

To place a variable in your text, choose the variable you want to insert from the Format menu. The variable will take on the attributes of the surrounding text. To select a variable, click on it, then you can change its attributes just like those of any other character. To change the display format for variables, use the Set Date & Page#Formats command from the Format menu. See also Variable Format Preferences, page 462, in Chapter 15 Customizing Nisus.

The date and time variables are not kept current. To update them choose **Update Time & Date** from the **Format** menu. You may also choose to have them updated automatically every time you print (there are appropriate check boxes in the Print dialog). If you do not have them updated when you print, you can use the date and time as time-stamps because they will retain the time when they were inserted.

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If you insert a new time or date this will automatically update the existing times and dates in the document. To insert a time stamp that will not update use the supplied macro **Time Stamp**.

# Jump

Nisus provides other ways besides using scroll bars for you to move around within your document. Nisus allows you to specify any page or line number and jump to it.

To jump to a specific page, choose **Page...** from the **Jump To** submenu of the **Tools** menu. The dialog illustrated in Figure 4-60 appears.

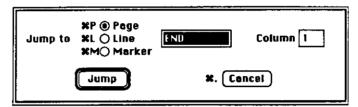


Figure 4-60 The Jump dialog when choosing Page...

When you press Return or click the Jump button, you will jump to the end of your document. Otherwise, type the page number you want to jump to and press Return or click the Jump button. This will bring you to the beginning of that page.

To jump to a specific line number counted from the beginning of the file, choose **Line...** from the **Jump To** submenu. Then type the line number and press Return or click **Jump**.

Note that when using Line..., the line numbers are always counted from the beginning of the document, never from the beginning of the page. The setting of the Line # Prefs... (in the Display submenu of the Tools menu) has no effect on this feature.

You may also jump to any marked position in your text, both in the current window or in other open windows when you choose Line... or Page... from the Jump To submenu and clicking the Marker button and typing the marker name. You can also jump to any marked position simply by choosing that marker name when it appears at the bottom of the Jump To submenu.

# Working with Markers

Think of markers as electronic bookmarks. You can use them to return instantly to exact places in your document. Markers can also be used to cross-reference different locations and text in your document.

You can mark both a location (insertion point) and a selection of text. When a text selection is marked, the start and end positions of the text selection are marked. When an insertion point position is marked, the start and end positions are the same. When you mark a selection of text and then delete the text, the start and end positions merge and a marked insertion point is left behind.

## **Setting Markers**

- Place the insertion point at the position you wish to mark or select the text you wish to mark.
- Choose Mark Text... from the Tools menu. If you made a selection, the first word will appear as the default marker name. You can use this name or type a different name for the marker.
- 3. Click Set

This will place a marker at the insertion point and add the marker name to the **Jump To** submenu of the **Tools** menu. If there is a selection at the time you place the marker, the whole selection will be marked. When you choose a marker name from the **Jump To** submenu of the **Tools** menu the insertion point will jump to the marked location; if a selection of text was marked, the marked text will be selected.

If you click with no marker name or the name NIL, the special marker NIL will be set. The Command key equivalent % (grave accent) will be automatically assigned. Whenever you jump to this marker, the current insertion point will be exchanged with the NIL marker. If you repeatedly jump to the NIL marker, you will be jumping back and forth between the two locations. You may set one NIL marker per file, and you cannot jump to the NIL marker of another document.

## **Jumping to Markers**

To jump to a marked position in any open file, choose the marker name from the **Jump To** submenu of the **Tools** menu. You can also choose **Line...** or **Page...** from the **Jump To** submenu of the **Tools** menu and type the marker name. When you press Return, Nisus will jump to that marker, selecting any marked text. By jumping to a marker, you can tell whether a selection of text or just the position was marked.

The marker names in all open windows are displayed in the Jump To submenu of the Tools menu. The markers of the top window are placed first, followed by the markers for the other open windows which are preceded by the names of the files. The only NIL marker shown is the one for the front window. For instructions on how to jump to text where a particular header or footer is defined see page 156.

## **Moving and Deleting Markers**

You can set any number of markers in your document. To move a marker, just set a marker with the same name at the new location. When the Mark Text... dialog is active, you can choose markers from the Jump To submenu of the Tools menu to place their names in the dialog instead of typing them.

To delete a marker, choose Mark Text... from the Tools menu. Choose the marker you wish to delete from the Jump To submenu of the Tools menu, or type its name, then click Delete.

- You may also delete a marker by holding Option while selecting it from the **Jump To** submenu of the **Tools** menu.
- Note that inserting and deleting markers does not alter the text and so cannot be undone using the **Undo** feature.

## **Editing Marked Text**

When you add new text between the first and last characters of marked text, the added text is included as part of the marked text. Anything you type after the last marked character is not part of the marked text. If you want to extend the marked text at its end, type just before the last character, then delete the last character. For example, assume that the word *plant* is marked in the following text:

Weeding plant rows...

The word plant should have been planted, so to extend it:

- 1. Place the insertion point before the t in plant
- Type "ted"
- 3. Delete the last t in plantedt
- If you delete the marked text in the document, the marker will not be deleted. It will stay with the first remaining character preceding its previous position. For example, if you mark the word fountain in the portion of text The crystal fountain flows... and then delete the words crystal fountain that marker will appear to the right of the space following the word The.

# **Cross Referencing**

When you want to refer to a particular page, line or paragraph you actually cross reference markers. This means that you must mark the text you wish to cross reference before you insert a cross reference variable.

## **Cross Referencing Markers**

Markers can be referenced from other parts of your document. As illustrated in Figure 4-61 you can cross reference to:

- · Page number of the marker location
- Line number from the top of the document
- · Line number from the top of the page
- Paragraph number from the top of the page
- Marked text (including footnotes as explained, page 157).

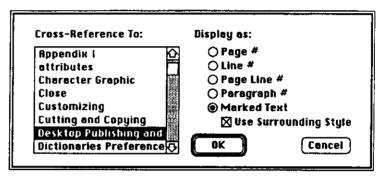


Figure 4-61 Inserting a cross reference marker or variable

As you change your document, markers will move with the text. The cross reference will then reflect the new marker position. Similarly, cross referenced text will display the actual marked text. If the text is changed later, the cross referenced text will only be updated when you choose **Update R-Reference** from the **Tools** menu. See Editing Marked Text, page 128 in this chapter.

If you attempt to delete a marker that has been cross referenced (by pressing the Option key as you choose the marker name from the **Jump To** submenu of **Tools** menu), the dialog illustrated in Figure 4-62 will warn you. If you go ahead and delete it anyway, the cross references to that marker will become invalid.

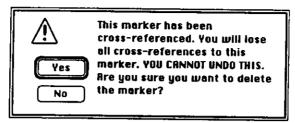


Figure 4-62 The Delete Cross Referenced Marker Dialog

Cross referencing allows you to maintain accurate references to other parts of your document. Use cross-referencing to refer to:

- · Section names that may change
- · Page numbers of text containing specific subject matter
- · Figure names and numbers that may change
- The line number of marked text
- The paragraph number of marked text

As the text moves, any reference to its page number, paragraph number or line number will change to reflect its new position.

Cross referencing the actual marked text is useful when you want to quote some text from another part of the document. For example, you can refer to figures by cross-referencing their titles. To do this mark the caption text "Figure 21-7" below the figure. Then choose **Cross Reference...** from the **Tools** menu and cross reference the marker text in the place where you wish to refer to Figure 21-7. If the text, using the cross reference, was:

See Figure 21-7 on page 40 for an example of ...

then the correct page number and figure name displayed at each reference could be easily updated even if the figure number or position

in the document changed. (The cross references are shown in bold in the above example for illustration purposes. Normally, they will match the surrounding text.)

If the figure name or number is changed you will have to choose **Update H-Reference** from the **Tools** menu so that the new name will be displayed. When a document is ready to be printed, you can have the cross references updated before printing by clicking the appropriate buttons in the Print dialog.

- 1. Mark the text to be cross referenced (a figure number or any other text).
- 2. Place your insertion point where you want the cross reference to appear.
- 3. Choose Cross Reference... from the Tools menu.
- 4. Select the marker name you wish to have cross referenced, click the desired **Display as:** option and click **OK**.

If you enter a cross reference to marked text and do not choose the option Use Surrounding Style the text of the marker will be entered into your document as it appears where it was marked (that is with all the font size and style attributes). You can change the attributes of that text, but, if you later choose Update H-Reference, the cross reference text will revert back to the attributes of the text as it was where it was marked.

### **Cross Reference Variables**

Cross references are treated as variables. When you choose the **Cross Reference...** command from the **Tools** menu you get a dialog as shown in Figure 4-61, on page 129 which lists all the current marker names. You can then choose a marker and using the buttons on the right, choose which cross reference to use.

You can then choose to display at the insertion point one of the following references:

- The page number of the marker: Page #.
- The line number of the marker (from the beginning of the document): Line #.
- The line number from the beginning of the marker's page: Page Line #.
- The paragraph number on marker's page: Paragraph #.
- The marked text itself: Marked Text.

You can combine these items by making multiple references to the marker. To get a format like "See Figure 4.5 on page 201":

- 1. Mark the text "Figure 4.5" if it is not already marked.
- 2. Type See.
- 3. Insert a reference to the marker's text as explained above.
- 4. Type "on page" (space before and after).
- 5. Insert a page number reference to the marker.

If you cross reference marked text, the text will normally be inserted with the same attributes as it had when it was marked. You may have these attributes ignored, however, by checking Use Surrounding Style. The text will then take on the attributes of the text immediately preceding the cross reference variable.

You can use your arrow keys to navigate in the Cross Reference dialog.

# **Copying and Pasting Markers**

You can copy and paste markers from one document to another with three possible outcomes.

If you copy the marker and the cross referenced text and paste them both in second file where there are no matching marker names, the cross references will appear as they did in the original file.

If you copy the marker and the cross referenced text and paste them both into a second file where there are matching marker names, the pasted marker will override the one of the same name in the "receiving" document.

If you copy the cross-reference without the marked text and pasting that text in another document, this will result in invalid cross references. When cross references are updated, you will find ##MISSING MARKER: marker name## in all places where a missing marker was referenced (marker name will be the name of the missing marker). Invalid cross references to page, line or paragraph numbers will appear as number signs ####. You may create a marker with the name of the missing marker and the invalid cross-reference will be restored the next time it is updated.

# **Document Layout**

The features covered here are:

- · Page Setup
- · Headers and Footers
- Footnotes
- Page Numbering
- Line Numbering

## Page Setup

When you create a new document, it is a good idea to set the paper size and orientation immediately if these are non-standard. This way you will be able to see your document as it will be printed while it is still on the screen. The positions of the margins influence the line length and therefore the length of the document.

Choose **Page Setup...** from the **File** menu to set the page size and orientation. The dialog that appears will depend on the printer you use. Each printer offers different options as illustrated in Figure 4-63 and Figure 4-64.

The options set in this dialog affect the entire document.

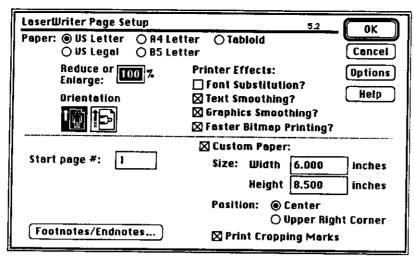


Figure 4-63 The LaserWriter Page Setup Dialog

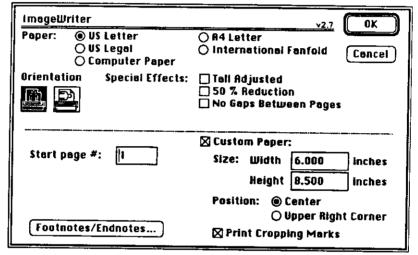


Figure 4-64 The ImageWriter Page Setup Dialog

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#### Paper Size

US Letter is standard 8½ by 11 paper. Select the size you want if it is listed. If you need another size, click **Custom**. Then type the size of your paper. You may have a custom page centered within the **US** Letter page boundaries or placed in the upper right corner.

You cannot enter a paper size that is larger that the paper your printer will accept.

If you are printing on paper which is larger than the page size you specify, cropping marks will help you align the pages later.

To get the largest possible printing area on 8½ by 11 paper:

- Choose Page Setup....
- 2. Click on the Options button.
- 3. Check the box Larger Print Area (Fewer Downloadable Fonts).
- 4. Choose Layout Page... or click on the Layout Page icon.
- 5. Choose **Expand** or click on the Expand Margins icon.

#### Paper Orientation

Set the orientation to portrait or landscape by clicking the appropriate icon. This will affect the way two-up printing works, as described in Layout Page... and Printing. If you select landscape printing, Nisus will rotate your document 90° when printing, but paper feeding remains standard.

# Layout Page...

The Layout Page... command in the File menu allows you to view a whole page on a small scale so that it fits on a small screen and you can get an idea of how it will look when it is printed. Layout Page... views the current page in your document. You may also use Layout Page... at any time to do the following:

- · Change margin limits
- Change columns and/or gutters
- Add and change page frames
- Set pages to be single-sided, double-sided, or two-up
- View facing pages (mirrored horizontally or vertically and/or centered vertically or horizontally
- Set Two-Up Printing (for brochure tayouts)

The changes you make in the Layout window affect the entire document. When you choose Layout Page... or click the Layout Page... icon in the scroll bar of the document window, the Layout menu, illustrated in Figure 4-65, will appear at the right of the menu bar.

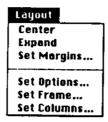


Figure 4-65 The Layout menu

The Layout window gives you a full page overview of how your document will look when it is printed. When a document is closed, its corresponding Layout window closes automatically. Because Layout windows are resizable, the page picture displayed changes its scaling as the window size changes. On large screens you can zoom the Layout window to see the full size of the displayed page.

The Layout window has an intuitive user interface. By clicking and dragging the mouse you can change the margin limits, move the printing region on the page, view two pages side by side, mirror the margins horizontally or vertically, or center the margins horizontally or vertically. Furthermore, if you set the pages to facing pages you can move the odd or even pages independently while pressing the Shift key in order to adjust the gutter (the space between the two pages). The Layout window is modeless. This means you can leave the Layout window open while editing the document. The Layout window is updated as you type. Figure 4-66 shows the Layout window of a sample document.

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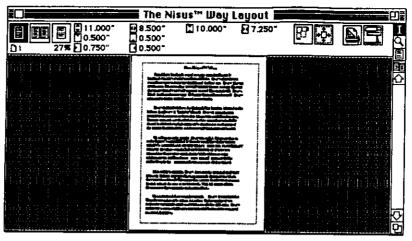


Figure 4-66 Layout window

When you are in ...Layout the *printing region* of your text is bordered by a dotted rectangle defining the *margin limits*. Most printers do not print to the very edges of the paper. The edges of the maximum printing region are called the *printer limits*. You can have the margin limits set all the way up to the printer limits. When the margin limits are fully expanded, it is not possible to move the printing region. If the margin limits are set inside the printer limits, you have the freedom of moving the text around on the page. Figure 4-67 shows a diagram labeling these terms.

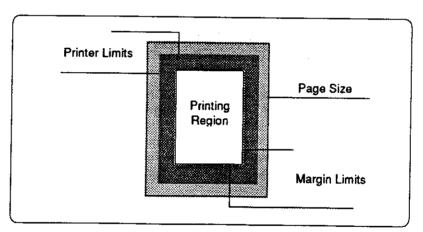


Figure 4-67 Single-sided page elements

The ico	ns above the vertical scroll bar in the Layout window perform owing functions:
	Show Layout Info Bar icon Click this icon to show and hide the Layout Info Bar.  Magnifying Glass icon Click this icon. The pointer changes into a magnifying glass when it is moved over the printing region. Move the magnifying glass to the part of the page you want to view and click. The document window is activated and that part of the page is scrolled into view. Alternatively, you can achieve the same result without clicking the magnifying glass by double-clicking at the same position in the preview window.  Document icon Click this icon to activate the document window and the insertion point position is scrolled into view.  Side by Side icon Click this icon to tile the document and the preview window
	side by side.
wargi	n Limits
Pages have four margin limits:	
	□ top     □ bottom     □ right     □ left
In Nisus	the margin limits are set for the whole document when in

In Nisus the margin limits are set for the whole document when in the Layout window. These must not be confused with the actual margins, which are set using the rulers and which can be different for each paragraph, but can never overrule the margin limits. The exact positions of the margin limits are shown in the Layout Info bar. See Figure 4-68. These values are updated as you change them.

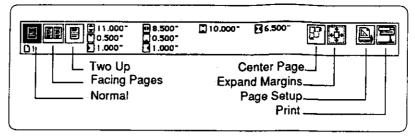


Figure 4-68 The Layout Info Bar

Paper height and width, and text height and width are also displayed in the Layout Info Bar:

Paper height Paper width Text height Text width

Text height = Paper height - (Top margin + Bottom margin)
Text width = Paper width - (Left margin + Right margin)

Paper height and width are defined in the Page Setup... dialog.

Click the Center Page icon or choose **Center Page** from the **Layout** menu, so that the left, right, top and bottom margin limits have equal distances from the page edges.

Click the Expand Margins icon or choose Expand Margins from the Layout menu so that all four margin limits and the text move out to the printer limits.

If you hold down Command while clicking Expand Margins icon the text does not move along with the margin limits.

The Page Setup and Print icons can be used in place of the corresponding menu commands in the File menu. When you choose a different print driver from the **Chooser** and then click ok in the Page Setup dialog, the Print icon changes into that driver icon. The Print icon shown above displays the LaserWriter icon.

## Setting the Margin Limits Visually

The margin limits are displayed as dotted lines surrounding the printing region. When you move the pointer over the dotted edges of the printing region, the pointer changes shape. Over the top and the bottom margins the pointer changes into  $\stackrel{\clubsuit}{+}$ , and over the left and the right margins it becomes  $\stackrel{\clubsuit}{+}$ . These icons are called the *resizing tools*. When the pointer changes into a resizing tool, you can click and drag the margin limits to change them.

If you move the margin limits without holding the Command key the paragraph indents move with them. If you press Command and drag the margin limits beyond the paragraph indents, the paragraph indents will be moved in with them; otherwise, they will not be affected. This is illustrated in Figure 4-69.

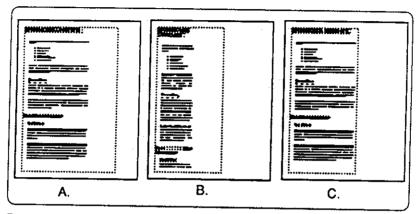


Figure 4-69 A) Document preview B) Document preview after moving the right margin without holding Command. C) Document preview after moving the right margin while holding Command

Setting Margin Limits, Columns, and Gutter Precisely

Double-click anywhere inside the Layout Info Bar or choose **Set Margins...** from the **Layout** menu to type in the values of the margin limits, number of columns, or column gutter. You will see the dialog shown in Figure 4-70.

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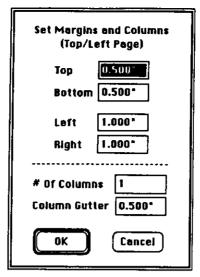


Figure 4-70 The Set Margins... dialog

For precise measurements type the values of the margins into this dialog, rather than using the Layout visual graphic interface.

## **Page Layout**

Single-Sided Pages

If you want to reproduce your document on one side of the paper click the Normal Page icon. The margin limits of even and odd pages will be identical. If you have set the orientation to landscape mode in the Page Setup... dialog, the Normal page icon changes into. The Layout window shows a scaled version of the printing region surrounded by the margin limits. If you click anywhere inside the printing region it becomes highlighted. As you click and drag it, the values of the margin limits are automatically updated in the information bar.

#### **Facing Pages**

If you want to reproduce your document on both sides of the paper, click the Facing Pages icon (portrait mode) in the Layout information bar. Nisus displays two pages at a time in the Layout window. If you have set the orientation to landscape mode the Facing Pages icon becomes . Facing pages have four margin limits: top, bottom, inside, and outside. In portrait mode, the page on the left is the even page, and that on the right is the odd page. In landscape mode, the top page is the even page, and the bottom page is the odd one. The inside margins also account for the gutter margins (the binding area). In Nisus you only specify the margins of the even page (left/top page). Nisus then calculates the margin limits of the odd page based on what options you have set in the Layout Options dialog (see Layout Options, page 146). Figure 4-71 shows facing pages.

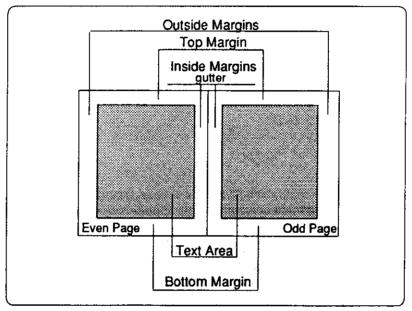


Figure 4-71 Facing Pages diagram

#### Two-Up Pages

If you want to reproduce your document so that two pages are printed on one side of paper, click the Two-Up icon (portrait mode). This layout is ideal for making brochures or pamphlets. If the page orientation is set to landscape mode, the Two-Up icon becomes (like you want to print double-sided documents click **Odd Pages** in the Print dialog then put the paper back in the paper tray and click **Even Pages**. When you are through printing, fold the sheets in half and staple them in the middle. This produces a complete booklet.

You can use this printing technique in conjunction with both portrait and landscape printing. Landscape mode prints booklets or pamphlets whose pages turn from right to left. Portrait mode prints booklets in which pages flip from bottom to top. Figure 4-72 illustrates the pages that are printed together on a single sheet of paper. The orientation shown is for landscape printing, but the pages are grouped in a similar way when in portrait mode.

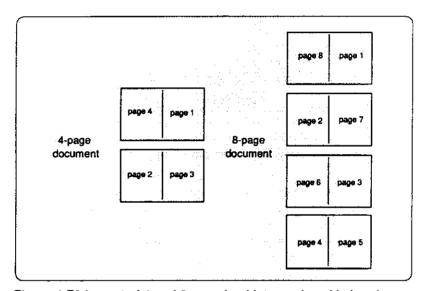


Figure 4-72 Layout of 4 and 8-page booklets produced in Landscape mode

The two-up printed output is different than what is displayed in the Layout window. Even if pages 2 and 3 are displayed as if they are on the same sheet in the Layout window, they will not be so when printed. Because each double sided sheet represents 4 pages of two-up output, a document will always be a multiple of 4 pages when printed in this layout. The numbering scheme for two-up pages is best illustrated with an example. For a document with 4 or 8 pages it is as shown in Figure 4-72.

### Mirror Image Pages

If you want to reproduce your document so that the printing region locations on the pages are mirror imaged as in Figure 4-73, click the Facing Pages icon or the Two-Up icon. Set the margins of the left/top page. Check the Margin Mirrored Horizontally (or vertically) option in the Set Options... dialog.

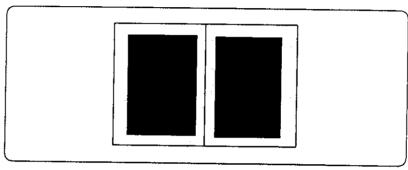


Figure 4-73 Mirror Image Pages

As you drag the edges of the printing region, both the inside and the outside margins are mirrored horizontally. This means that the left margin of the even page is equal to the right margin of the odd page, and the right margin of the even page is equal to the left margin of the odd page, as illustrated in Figure 4-74.

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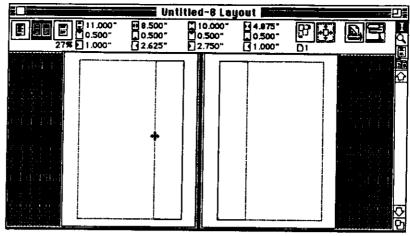


Figure 4-74 Margins Mirrored Horizontally

## Repeated Pages

Repeated pages are produced when the printing region of the left pages are identical to those of the right pages as in Figure 4-75.

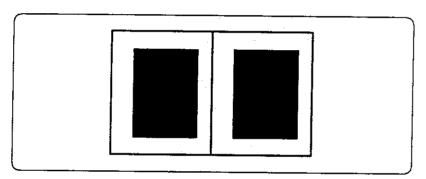


Figure 4-75 Repeated Pages

In Nisus the inside margins include the gutter margins. To produce repeated pages with gutters, the left margin of the odd page must equal the left margin of the even page plus the gutter margin. Create mirror image pages as explained in the previous section. Hold Shift while you click and drag the left page in the Layout window as

illustrated in Figure 4-76. As you drag watch the values of the margin limits in the info bar.

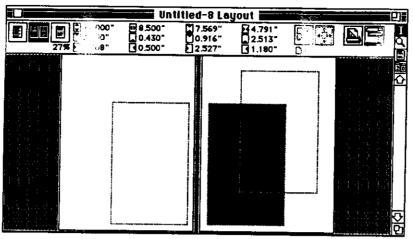


Figure 4-76 Margins Mirrored Horizontally with Shift key pressed

# **Layout Options**

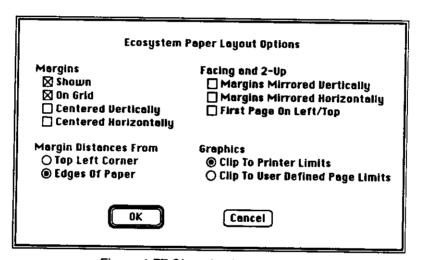


Figure 4-77 Changing Layout options

You can change the ...Layout environment by using the Layout Options dialog, illustrated in Figure 4-77, which is accessible by choosing the **Set Options...** command in the **Layout** menu. The margin limits are affected by the boxes which are checked.

## Margins

These options affect the margin limits:

- If Shown is checked the margin limits will be displayed as dotted lines in the Layout window.
- If **On Grid** is checked, the margin limits will be forced to position on a 0.125" grid.
- Centered Vertically keeps the top and bottom margins equal. If one of them is changed, the other will change to match it.
- Centered Horizontally keeps the left and right margins equal. When you change one of these margins, the other margin is also changed.

### Margin Distances From

These options permit you to choose how the margins are displayed in the ...Layout Information Bar:

- Click Top Left Corner to display margins as distances from the top-left corner of the page.
- Click **Edges Of Paper** to display the actual width of the margins.

#### Facing and Two-Up

Facing and Two-Up printing methods are designed to help you in preparing two-sided documents. Nisus provides options to ensure that when you change the margin on one of the pages, the margins on the other side are adjusted properly.

The first page is usually placed on the right or bottom, depending upon the page orientation. You may change this. When in the Layout window, choose **Set Options...** from the **Layout** menu then check: First Page On Left/Top.

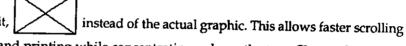
## Graphics

The graphics options enable you to decide where graphics will be clipped. These options affect only how graphics are printed—no information is lost.

Clip To Printer Limits allows you to clip graphics in your document which extend beyond the user defined margin limits.

Clip To User Defined Page Limits allows you to print the portion of graphics which lie inside the margin limits. Parts of graphics which extend outside the margin limits will simply be "chopped off."

You can display and print graphics as a box with a large X through



and printing while concentrating only on the text. Choose **Graphics As** H from the **Display** submenu of the **Tools** menu. No information is lost; the entire graphic will print when required.

## Columns and Gutters

You may have up to 8 columns of equal width in a document. When this number is changed, the entire document is affected and reformatted accordingly. The default is a single column. While you cannot vary the number of columns within a document, you can add graphic text boxes as explained on page 249, or entire documents with different column attributes using the Place Page..., and Place New Page commands. For more information on using the Place Page feature see Desktop Publishing and HyperText Links using Page Graphics, page 291.

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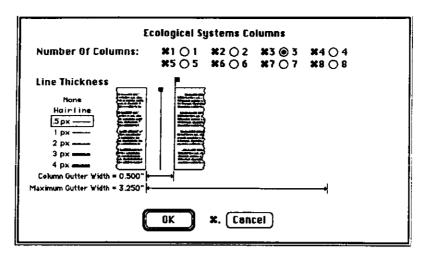


Figure 4-78 Using more than one column

To change the number of columns, choose **Layout Page...** then choose **Set Columns...** from the **Layout** menu. Decide on the number of columns. You can place an optional vertical line between columns and you can set its thickness. To set the column gutter, drag the torn page on the right as shown in Figure 4-78. Both the current column gutter width and the maximum column gutter width are updated in the dialog. The column gutter width changes as you drag the torn page.

To set the thickness of the line, click on the desired line thickness in the dialog. Click None to have no line drawn between columns.

The square dot on top of the line is called its handle. You may change the length of the line by dragging its handle vertically. The line will stretch and shrink as you drag the handle up and down.

Footnotes appear at the bottom of the column in which they are inserted if you choose the footnote placement option Place footnotes at bottom of page.

Headers and footers will span multiple columns.

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To start a new column choose Insert Page Break from the Format menu. You can achieve the same result by selecting one block of text you want in one column and choosing Keep On Same Page.

## **Page Frames**

Frames are boxes which surround the text on each page of the document. Choose **Set Frame...** from the **Layout** menu to change the page frame. The frame lies just outside the margin limits that you set in the Layout window.

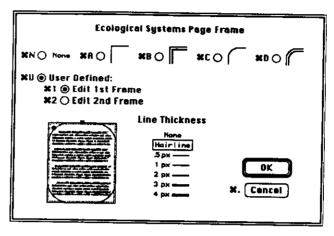


Figure 4-79 Page Frame dialog

In the dialog box that appears, Figure 4-79, you can choose between the four default page frames or define your own custom frame of one or two lines:

- Click User Defined to define your own frame.
- Click Edit 1st Frame or Edit 2nd Frame to edit the frames.
- · Click None to remove the frame.

You can change the size of the frame by dragging the handle on the top-center of the frame in the diagram. You can round the corners of the frame by dragging the handle in the top-left corner of the diagram. You can edit the frame at any time by repeating the above process.

If your margins are too close to the printer limits and you place a frame around your text the frame may not show on all sides as illustrated in Figure 4-80.

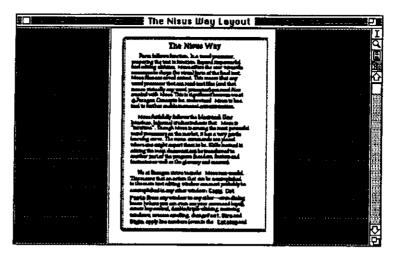


Figure 4-80 Frame beyond the printer limits

In that case you will get a dialog box illustrated in Figure 4-81, when printing. If you still want the frame, you will need to bring your margins and or line wrap indicators in from the edge of the document.

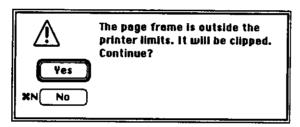


Figure 4-81 Dialog when page frame is beyond printer limits

## **Layout Undo**

Nearly every command executed in the Layout window is undoable. Some exceptions are:

- Changing the thickness or height of the line in the middle of the column gutter.
- Changing preview options that do not affect the text or the page position on a paper. Some examples are the show and hide margins, mirror margins and display margins from....

#### **Headers and Footers**

A header is a mini-document which appears at the top of every page until superseded by a new header. A footer is similar, but its contents appear at the bottom of the page. A header and footer are attached at the beginning of the paragraph in which they are inserted.

Headers and footers appear first on the page of their attachment paragraph, and then on all subsequent pages until the next header or footer is inserted. The exception to this is odd/even headers and footers, as explained below.

Headers and footers are useful for labeling pages and putting the name of the document or chapter at the top or bottom of each page. They can include graphics and multiple paragraphs of text, but they are limited to about 33% of the page size. If too much is inserted into the header or footer, the excess will not be displayed.

## Inserting Headers and Footers

To insert a header or footer:

- 1. Place the insertion point immediately before the paragraph where you want the header or footer to begin.
- 2. Choose Insert Header or Insert Footer from the Format menu.

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Inserting a header or footer will open the Header/Footer window which can be edited just like any other text window. All the headers and footers are shown in this window, in the order in which they appear in the document.

## Opening Header/Footer Window

There are four ways to open the Header/Footer window illustrated in Figure 4-82:

- Choose Insert Header.
- Choose Insert Footer.
- Double-click any header or footer (the actual text at the top or bottom of a page.)
- Double-click a header or footer icon in the left margin.
- Choose Headers/Footers from the Display submenu of the Tools menu

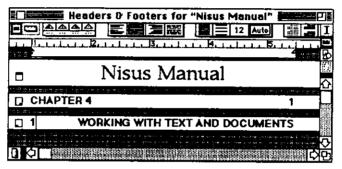


Figure 4-82 Header/Footer window

Note that when a header/footer window is in front, the **Header/Footer** menu appears at the right of the menu bar. See Figure 4-84 A & B. To close the Header/Footer window and get back to your document, click the close box or choose **Close** from the **File** menu, or **Document** from **Display** submenu of the **Tools** menu.

#### Header and Footer Types

When you insert a header or footer, it appears initially on all pages up to the next header (footer), but placement can be limited to even or odd pages.

### Editing Headers /Footers

The Header/Footer window contains all the headers or footers in the document. You may edit any one of them. To find the paragraph to which a specific header or footer is attached, place the insertion point within the header (footer) before you close the Header/Footer window, or choose Go To Reference from the Header/Footer menu. The insertion point is then placed at the beginning of the paragraph where the header or footer is defined.

Notice the appearance of the header and footer icons in Figure 4-82 and Figure 4-83. The header icon has a black bar extending across the top to signify that it is a header. The footer icon has a bar at the bottom.

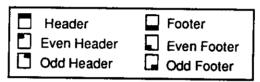


Figure 4-83 Header and Footer icons

Use the Show Headers/Footers icon in the Master Ruler, it will become highlighted to show the icons in the left margin. When you have these icons displayed in the left margin you can tell at a glance what type of header or footer is represented in the Header/Footer window. These icons also appear in the main document where they have the same meaning.

## Changing the Type of Headers and Footers

To change the type of a header or footer, pull down the 154

**Header/Footer** menu that appears on the right side of the menu bar. Figure 4-84 A & B shows how to change or delete headers and footers.

Header/Footer
Remove Header

All Pages
Odd Pages
Even Pages
Go To Reference

Header/Footer
Remove Footer

Rull Pages
Odd Pages
Even Pages

Foo To Reference

Figure 4-84 A & B Header/Footer menus

You can define the type of header or footer by using the menu commands. To delete, choose **Remove Header** or **Remove Footer**. Headers and footers can also be removed by deleting the return character from the beginning of their attachment paragraphs.

Any number of headers and footers can be placed in a document but no more than one header and one footer may be attached to a single paragraph.

## Using Multiple Headers and Footers

You can define multiple headers and footers within a single document in order to place different headers and footers on different pages. When more than one header appears on a page, the header closest to the top of the page is displayed. Likewise, the footer closest to the bottom of the page is displayed when there is more than one footer on a page.

You may change headers and footers throughout the document by inserting them at the paragraph where you want them to begin.

If you want to prevent the appearance of headers (footers) past a particular page, insert a blank header on the page where you want the header to stop displaying.

It is not necessary to use headers and footers to create top and bottom margins unless these margins vary in size throughout the document. Change the margin limits for the whole document while in the Layout window.

### Closing Header/Footer Window

Close the Header/Footer window to return to the main document. You will be returned to the paragraph where the current header or footer was inserted. The current header or footer is the one containing the insertion point.

Hold the Shift key down when closing the Header/Footer window if you want to return to where the header or footer was inserted. If you do not hold Shift, you are returned to where the insertion point was when you opened the Header/Footer window.

#### Footnotes and Endnotes

Footnotes consist of two parts: the footnote reference, as shown here, and the footnote text as shown at the end of this page, following a short horizontal line called the separator line.<sup>1</sup>

A footnote or endnote is a mini-document which appears either at the bottom of a particular page or at the end of a document. Notes will appear in a region above any footers that have been created. The reference symbols for the notes can be entered anywhere in the text. A character graphic can have a footnote, but footnotes cannot be placed on the graphics sheets, nor in a graphics-text box. Footnotes can include graphics both on the text and the graphics sheets.

### Inserting Footnotes and Endnotes

- 1. Place the insertion point immediately following the text.
- 2. Choose Insert Footnote from the Format menu.

<sup>&</sup>lt;sup>1</sup>This is an example of a standard footnote. Footnote placement options in this document are Place footnotes at bottom of page and Footnotes may separate from their references.

- 3. Type the footnote text; close the **Footnotes for...** window using **Close** from the **File** menu or the close box.
- 4. Repeat the process for each note. They are numbered automatically

Inserting a footnote will open the **Footnotes for...** window which can be edited just like any other Nisus document.

The automatic margins of the notes are the same as the margin limits<sup>1</sup> set for the document in **Layout Page...**. The footnote symbol is indented to a default tab of 0.5 inches. These parameters can be altered. The font, and style attributes used in the document are maintained in the notes but can be changed as with any other text.

The footnote symbol in the document appears in a scaled version of superscript style that does not affect the spacing of your lines. Otherwise, it shares the same attributes of font, size and style as the character immediately preceding the note symbol. In the footnotes text, while the font and style remain the same as in the document, the text font size becomes (the closest whole number to)  $\frac{5}{6}$  of the document font size. The font, size and style of the footnote's text and symbol can be changed without affecting that of the document. The reverse is also true.

## **Cross Referencing Footnotes**

You can cross reference existing footnotes so that the same text will use the same marker in your document. Select the footnote marker and choose Mark Text from the Tools menu. When the dialog appears, the footnote marker will be in the text edit box. Type some text to identify the note (the footnote marker will appear only as a nonprintable character). Click set . Once the footnote marker has been set you can cross reference to it the same as to any other marked text as explained in Cross Referencing, page 129.

<sup>&</sup>lt;sup>1</sup>The actual margin here is at the margin limit set in Layout Page....

#### Opening the "Footnotes For..." Window

There are four ways to open the Footnotes for... window:

- Choose Insert Footnote from the Format menu (thus also inserting a footnote).
- Choose Footnotes from the Display sub-menu of the Tools menu.
- Double-click on the footnote reference in the text (when your l-beam becomes an arrow).
- · Double-click on any footnote or endnote text.

In the footnotes window all the footnotes are shown in the order in which they appear in the document. You can cut, copy, or paste text from note to note. You can also perform these operations from, or back to, your document, or to another document.

The Footnotes for... window, Figure 4-85, contains all the notes of the document. Any one of them can be edited just as another Nisus document.

In the **footnotes for...** window, each note is treated as a mini-page. When a new footnote is inserted, its format follows the current pattern. The rulers of all the notes can be selected so that these as well as other formatting options can be altered simultaneously. Variables can be entered into the notes. Nisus' powerful Find/Replace capabilities are accessible while in the **footnotes for...** window and it is possible to **Jump To** but not **Mark Text...**. The **Thesaurus...** and **Spelling...** are also accessible while the **Footnotes for...** window is open.<sup>2</sup> Nisus' macro language functions in the **Footnotes for...** window.

<sup>&</sup>lt;sup>1</sup>In the **Footnotes for...** window you will not be prevented from cutting or copying the reference mark; however you would not normally need to do this.

<sup>&</sup>lt;sup>2</sup>A general spell check of a document will not check the notes. To check the spelling of the notes, open the **Footnotes for...** window and do an independent spell check.

### Editing Footnotes and Endnotes

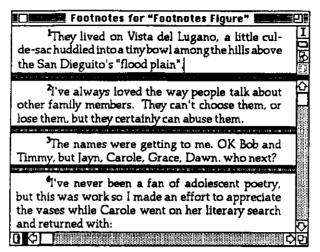


Figure 4-85 The "Footnotes for..." Window

If is not possible to index items or number lines in the notes.

When the **Footnotes for...** window is open the **Footnotes** menu, Figure 4-86, appears at the right of the menu bar. From this menu decisions are made regarding footnote symbols and placement. It is also possible to return to that point in the text where a specific note was entered.

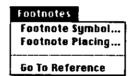


Figure 4-86 Footnotes menu

## Choosing the Footnote Reference Symbol

Footne	ote Symbols:
×1 📵 Set Individual s	ymbols.
×2 ○ Set default syn	nbols for new foetnotes/endnotes.
XN ⊚ Number Rutom	etically
MS O Start Numberin	g At; Same
In the document:	In the notes:
<b>#3</b> () 1	<b>*</b> C O 1
<b>#4 (1)</b>	<b>₩</b> 0 Ŏ[1]
<b>X5</b> (1)	ME O (I)
	₩F Õ 1.
<b>×</b> 7 <b>⊚</b> *	<b>x</b>
X8 O None	XH O None
#9 ○ Other: *	#I O Other: *
#0 🔲 Superscript.	#J 🔲 Superscript.
0K	X. Concei

Figure 4-87 The Footnote Symbol Dialog Window

To choose the footnote reference symbol, choose **Footnote Symbol...** from the **Footnotes** menu. In the dialog box which opens, many prepared footnote symbols are available. Any symbol accessible on the Macintosh can be used in a numbering scheme (Option  $T = \dagger$ , Option Shift  $7 = \ddagger$ , Option 6 = \$, Option  $8 = \bullet$ , Option 7 = \$, etc.). These symbols, however, will not be considered in the numbering sequence. The numerals will continue following the symbols with whatever the previous number was, plus one.

It is also possible to change a note symbol from a numeral to an asterisk or other non-digit symbol. This is done note by note using the **Footnote Symbol...** command.

Note that the asterisk or star symbol is already placed high relative to other characters. When used as a footnote symbol it should not be put in superscript style.

Choose the symbol you want to use in the document from the dialog illustrated in Figure 4-87. This will automatically check the same symbol in the notes. If you wish to make these different, change the symbol to be used in the notes.

You can use one symbol set in the text of the document and a different one in the notes. For example you may want to use a bracketed number in the document and a plain number in the footnote. Click the [1] button in the left column under "In the document," and then click the button showing either "1" or "1." in the right column under "In the notes."

In the document or in the **Footnotes for...** window, the font, size, and style of the footnote symbol can be changed just as in any text. These changes will only affect that individual symbol. The symbol in the text functions independently of its counterpart in the notes. To make the corresponding symbol in the document text duplicate those attributes, return to the text and make the same change there.

Once a note is created it is possible to change its symbol without going through the **Footnotes for...** window. Press the Shift key and double-click on the note or the footnote symbol in the text.

The options automatically set in this window are **Set individual symbols**, **Number automatically** (beginning at 1) and a simple numeral which appears in superscript both in the document and in the notes. Certain options are mutually exclusive. With **Set default symbols for new footnotes/endnotes** checked, numbering remains automatic and a new set of symbols can be selected.

To start a new sequence of numerals Check **Start Numbering At**, enter the number at which counting should resume and click OK.

## Choosing Footnote Placement

The standard Nisus placement of notes, if you don't make any choices in the dialog illustrated in Figure 4-88, is as follows:

- Footnotes (as opposed to endnotes), that is, notes at the end of each page (or column) of the document.
- 5 points below the end of the document text on each page, beneath a footnote separator line 108 points long, indented 36 points from the left margin.

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- Insufficient space on a page for the entire note text will
  cause Nisus to place the remainder of the footnote text on
  the following page.
- An example of the results of the standard options (reduced to fit) is shown in Figure 4-89 Nisus Footnote Placement, page 167. The same text and formatting with only the footnote placement options differing is illustrated in Figure 4-90 on page 164 and Figure 4-91 on page 165.

Footnote/Endnote Placing:	
#E □ Endnotes.	
≭B 🗀 Place footnotes at bottom of page.	
XD 🔲 Don't divide footnate text.	
MS 🗇 Footnates may separate from their references.	
#R □ Renumber footnotes on every page.	
<b>X</b> F $\square$ footnotes do not exceed $1000\%$ of page.	
Separation between document and footnotes: 5 points.	
Separator line size: 108 points.	
Distance between separator and left margin: 36 points.	
OK X. Cancel	

Figure 4-88 The Footnote/Endnote Placing Dialog Window

Nisus offers six other options for placement of your notes. Each one can be changed in the Footnote/Endnote Placing dialog box shown in Figure 4-88. Choose Footnote/Endnote Placing... to open the Footnote/Endnote Placing dialog box from the Footnotes menu available when the Footnotes for... window is active or double-click on the footnote separator line. Some combinations of the settings are mutually exclusive.

#### 1. Endnotes (%Endnotes)

Check this to place all the notes at the end of the document. All other options are thereby disabled. You can create only footnotes or endnotes in any single document. It is possible to change between them at any time.

2. Place footnotes at bottom of page. (\*Bottom)

Check this for the notes to appear at the bottom of the page rather than just below the end of the document text.

#### 3. Don't divide footnote text (%Don't Divide)

In the standard option, a note's text is permitted to start on one page and, if there is insufficient room, to continue on the next. Check **Don't divide footnote text** to prevent this from occurring. The note's text will then always appear as an undivided block, but may be on a page other than its reference symbol in the document. (The following option is automatically checked along with this.) See Nisus Footnote Placement 3, (Figure 4-90 page 164).

## 4. Footnotes may separate from their references (%Separate)

There may be insufficient room to place even the first line of the note's text at the bottom of the page.

- •If this option is *unc*hecked, Nisus will move the line of the document with the note symbol to the next available page. There, both symbol and note text can appear together.
- •If this is checked, Nisus will keep the symbol on one page and permit the note text to appear on a succeeding page, thus separating it from its reference.
- •This option is always checked when **Don't divide footnote text** is checked in order to avoid large gaps at the bottoms of pages. See Nisus Footnote Placement 4, (Figure 4-91 page 165).
- 5. Renumber footnotes on every page(%Renumber) Check this to have numbered footnotes begin again from "1" on each page. This is disabled when Footnotes may separate from their references is checked, because that would create ambiguous footnote reference numbers.
- 6. Footnotes do not exceed 700 % of page. (%Footnotes)

This may be set to virtually any percentage. The option automatically selects Footnotes may separate from their references.

with the pen and pad she offered. Civility to be able to find her at (619) 481-1477. "She moved back from Los Angeles a few years ago and you ought But that was her father's house, she's moved to a singles community by the beach. Her new number is 481-6154." I'd written it all so I went back to correct it phone numbers in my book." she told me as she stepped over to the telephone nook. everything I told her; it was clear this was led through the tiled foyer to the needed to speak with Mrs. Almari about family room where Carole was sitting. overlooking a pool-filled yard. I wasn't to answer the door. When I told her I family could afford a well paid helper. Pastel carpets and vases glowed in the sun that streamed in through a glass wall It didn't take long for the housekeeper her niece, she immediately understood

"You know, Timmy and Dawn were very close in those days, I never approved of the liaison, but family.... She used to spend a lot of time here. I'd give her dinner once a week when Bart cleaning out Timmy's closet a year ago reigned her fælings.

expecting a cordial reception. I knew Carole and Bart had never been close, and, as is all too common, the next got when I asked about Dawn made me feel as though I had been thrown from the warmth of the room into the early

morning Pacific.

generation suffers, but the cold stare I

Figure 4-90 Nisus Footnote Placement 3

when I found a batch of papers 1 lying Twe always loved the way people talk about other family members. They can't choose them, or lose them, but they certainly can abuse them. haven't spoken with her in ages, nor

Timmy, but Jayn, Carole, Grace, Dawn. who next?

The names were getting to me. OK Bob and

the two of them had written. Let me loose in a box. It was filled with poems show them to you. I know Timms wouldn't mind."

I thanked her may graciously and asked: "Might Jayn, perhaps, have more current information

involvement with the girl since her try. Here, I'll call her. The kids have "I doubt it, neither of us has had any father's accident, but you're welcome to already gone off to school, I'm sure she's home." Without looking, she deftly home." Without looking, she deftly pressed all seven of the numbers into her stylish phone.

give ner connect varies a recommendation of the never were an effort to appreciate the recommendation of thom shared a lot then. I was the vases while Carole went on her literary search and returned with:

Whose movements were smooth as a fawn. There once was a girl soft as Dawn, She was almost like Bambi. But I moved, and then she was gone. With her feet she was handy,

> do I want to, she turned into a real brat,2 They lived on Vista del Lugano, a little cul-desac huddled into a tiny bowl among the hills above but I do keep all the family members' he San Dieguito's "flood plain".

Nisus Footnote Placement 3 Page 1

Nisus Footnote Placement 3

Page 2 Page 3

Nisus Footnote Placement 3

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everything I told her; it was clear this was led through the tiled foyer to the overlooking a pool-filled yard. I wasn't needed to speak with Mrs. Alman about family room where Carole was sitting. Pastel carpets and vases glowed in the to answer the door. When I told her I sun that streamed in through a glass wall It didn't take long for the housekeeper her niece, she immediately understood

They lived on Vista del Lugano, a little cul-de-ac huddled into a tiny bow! among the hills above the San Dieguito's "flood plain". got when I asked about Dawn made me feel as though I had been thrown from the warmth of the room into the early want to, she turned into a real brat, 2 expecting a cordial reception. I knew Carole and Bart had never been close, haven't spoken with her in ages, nor and, as is all too common, the next generation suffers, but the cold stare I morning Pacific. 유 Figure 4-91 Nisus Footnote Placement 4

"She moved back from Los phone numbers in my book." she told me as she stepped over to the telephone but I do keep all the family members'

written it all down so I went back to father's accident, but you're welcome to correct it with the pen and pad she try. Here, I'll call her. The kids have everything I told her; it was clear this Angeles a few years ago and you ought family could afford a well paid helper. 1 to be able to find her at (619) 481-1477. But that was her father's house, she's moved to a singles community by the beach. Her new number is 481-6154." I'd nook.

approved of the liason, but family.... She used to spend a lot of time here. I'd and Grace were busy with work. I think very close in those days, I never give her dinner once a week when Bart the two of them shared a lot then. I was when I found a batch of papers 1 lying other family members. They can't choose them, or cleaning out Timmy's closet a year ago

The names were getting to me. OK Bob and Timmy, but Jayn, Carole, Grace, Dawn. who next? lose them, but they certainly can abuse them. T've always loved the way people talk about Nisus Footnote Placement 4

Page 2 Page 3

Nisus Footnote Placement

Nisus Footnote Placement 4

Page 1

the two of them had written. Let me show them to you. I know Timmy loose in a box. It was filled with poems wouldn't mind."

I thanked her most graciously and asked: "Might Jayn, perhaps, have more current information?"

"I doubt it, neither of us has had any involvement with the girl since her offered. Civility reigned her feelings. already gone off to school, I'm sure she's "You know, Timmy and Dawn' were home." Without looking, she deftly pressed all seven of the numbers into her stylish phone. Twe never been a fan of adolescent poetry, but this was work so I made an effort to appreciate the vases while Carole went on her literary search There once was a girl soft as Dawn,
Whose movements were smooth as a fawn.
With her feet ale was handy.
She was almost like Bambi.
But I moved, and then she was gone. and returned with:

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### Removing footnotes

Footnotes can be removed using a variety of methods.

- Place the insertion point immediately to the right of the symbol in the document and press Delete or Backspace.
- Select the note symbol in the text and cut it by choosing Cut (%H) or Clear from the Edit menu or press the delete or backspace key. A double-click on a note symbol (while the I-beam is an arrow) will open the Footnotes for... window; but not select the symbol.

If selected, the entire footnote can be pasted elsewhere in the text or in another document. The numbering sequence of all the notes, in whichever documents are affected, will be updated automatically. Selecting and changing the symbol of the note (though not its font, size or style) in the main body of the document will eliminate the entire note (symbol and text). Nisus is very forgiving; simply <code>Undo...</code> if this should occur.

A footnote cannot be cut from within the **Footnotes for...** window. Deleting, backspacing or cutting it there will only remove what appears (the text and/or the symbol) in the notes section of the document but will not affect the numbering, nor will it remove the separator line. The symbol will remain in the body of the text.

## Closing the "Footnotes for..." Window

To close the **Footnotes for...** window and return to the main document:

- Click the close box in the upper left corner of the window or choose Close from the File menu (%W). The insertion point returns to where it was before the Footnotes for... window was opened.
- Choose Go To Reference from the Footnotes menu to return to the corresponding symbol in the document.
- Choose Document from the Display submenu of the Tools menu. The insertion point will return to where it was before the Footnotes for... window was opened.
- Press Shift and click the close box to return to the reference.

loose in a box. It was filled with poems the two of them had written. Let me when I found a batch of papers lying show them to you. I know Timmy wouldn't mind." me as she stepped over to the telephone "She moved back from Los Angeles a few years ago and you ought but I do keep all the family members' phone numbers in my book." she told

I thanked her most graciously and But that was her father's house, she's asked: "Might Jayn, perhaps, have more to be able to find her at (619) 481-1477.

already gone off to school, I'm sure she's "I doubt it, neither of us has had any father's accident, but you're welcome to try. Here, I'll call her. The kids have home." Without looking, she deftly pressed all seven of the numbers into written it all down so I went back to involvement with the girl since her moved to a singles community by the current information? beach. Her new number is 481-6154." I'd "I doubt it, neither offered. Civility reigned her feelings.
"You know, Timmy and Dawn were very close in those days, I never correct it with the pen and pad she approved of the liaison, but family.... She used to spend a lot of time here. I'd give her dinner once a week when Bart

Two never been a fan of adolescent poetry, but this was work so I made an effort to appreciate the vases while Carole went on her likerary search and returned with: her stylish phone. and Grace were busy with work. I think cleaning out Timmy's closet a year ago the two of them shared a lot then. I was

There once was a girl soft as Dawn, other family members. They can't choose them, or

Whose movements were smooth as a fawn. She was almost like Bambi. But I moved, and then she was gone.

The names were getting to me. OK Bob and Timmy, but Jayn, Carole, Grace, Dawn. who next? lose them, but they certainly can abuse them.

Page 2 Page 3

nook. family could afford a well paid helper.1 It didn't take long for the housekeeper to answer the door. When I told her I needed to speak with Mrs. Almari about her niece, she immediately understood niece, she immediately understood everything I told her; it was clear this was led through the tiled foyer to the sun that streamed in through a glass wall overlooking a pool-filled yard. I wasn't expecting a cordial reception. I knew and, as is all too common, the next feel as though I had been thrown from the warmth of the room into the early family room where Carole was sitting. Pastel carpets and vases glowed in the generation suffers, but the cold stare I got when I asked about Dawn made me Carole and Bart had never been close, morning Pacific.

haven't spoken with her in ages, nor want to, she turned into a real brat,2 They lived on Vista del Lugano, a little cul-de-sac huddled into a tiny bowl among the hills above the San Dieguito's "flood plain". do J

T've always loved the way people talk about

Page 4

Figure 4-89 Nisus Footnote Placement

## Page Numbering

"Page number" is a variable that you will find especially useful in headers and footers. Insert it anywhere in the text and it will show the correct page number. To insert a page number, choose Insert Page # from the Format menu. To change between Arabic and Roman numbering choose Set Date & Page# Formats from the Format menu.

Page Numbers will normally start at 1. To begin numbering at another number, enter the page number you want in the text box provided following **Start page #:** in the **Page Setup...** dialog box or in the **Set Date & Page # Formats...** dialog. You can set the starting page number to any reasonable value. Setting it negative will allow you to start page numbering at other than the first page. For example suppose you had three cover pages for your document which you did not want numbered. Set **Start Page #** at -2. Insert the first header (or footer) which has the page number variable, on the fourth page, it would then be numbered 1.

## Line Numbering

You may have line numbers appear next to every line of your document. The lines can be numbered either from the beginning of the document or from the beginning of the page.

To number lines automatically, choose Line Numbers from the Display submenu of the Tools menu. They are displayed in the left margin. If you print the document when the line numbers are displayed, the line numbers will also be printed. The Line # Prefs... dialog allows you to choose the method of numbering and the font, style and size of the line numbers. It also allows you to make your page appear as a Pleading Page used in legal settings (a Pleading Page stationery file is shipped with your original disk). See Line Number Preferences, page 461.

To cancel the display of line numbers, choose **Line Numbers** again. When line numbers are being displayed, the **Line Numbers** command is checked in the menu.

# **Keeping Text Together and Forcing Page Breaks**

You can keep sections of your text together or force a page break. Select the text you want to have on the same page (including, if you wish character graphics—this has no effect on the graphics sheets) and choose **Keep On Same Page** from the **Format** menu. Alternatively, if you want to start a new page, simply place your insertion point where you want the new page (or column) to begin and choose **Insert Page Break** from the **Format** menu.

## **Printing**

When you are ready to print, choose **Print...** from the **File** menu or click the Print icon in the Info bar of the Layout window. If you have a LaserWriter you will see the Print dialog illustrated in Figure 4-92. Any options you change below the dotted line will be saved with the document so that the next time you print they will be set the same way. A similar dialog is displayed for the ImageWriter.

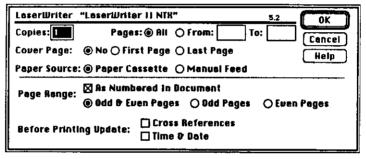


Figure 4-92 LaserWriter Print Dialog

Type the number of copies you want in the **Copies** box. Each page of the document will be printed this number of times before the next page is printed. Documents are not collated.

You may specify a page range to print in the **From** and **To** boxes. You may leave either end of the range open. For example, type 5 in

the **From** box to print every page from page 5 to the end of the document. If you want to print the entire document, click **RII**.

If you want to print only one page, type the number of that page into both boxes. For example: © From: 157 To: 157, will print only page 157.

Click First Page or Last Page following Cover Page in the Print dialog to have a cover page printed containing the following information:

- Your user name as set in the **Chooser** desk accessory
- The name of the printing application
- The name of the document
- The date
- The time
- The name of the printer

Click the **Manual Feed** button if you want to feed each sheet manually for double-sided printing or printing one sheet at a time on special paper or envelopes.

To print two sided documents choose **Odd Pages** first, then turn over all the pages and choose **Even Pages**.

Pages will be printed either from last to first or the reverse depending on what you have selected in the **Printing Options** dialog which appears when you choose **Printing...** from the **Preferences** submenu of the **File** menu. Different printers release the printed page either face up or face down. This variable would determine how you should set your option. For more on **Printing Options**, see Printing Preferences, page 449.

If you check As Numbered In Document, the numbers in the page range boxes will be interpreted to mean those numbers on the pages that you see in the headers or footers (or beside the page number icon in the Info Bar). This number can change depending on how you set Start page #: in Page Setup or in the Set Date &

**Page # Formats...** dialog. To interpret the page range in terms of the actual sheets of paper rather than the document page numbers, leave this option unchecked. This option has no effect if the starting page number is set to 1.

If you set your beginning page number to a negative value you must uncheck As Numbered In Document for those pages before "1" to print.

Cross-references will not be updated when you print. To assure that cross-references are updated, check **Cross References**. This option has no effect if you do not use the cross-referencing feature.

You can insert the current time and date into your document and not have them change. If you want them to reflect the time and date that the document is printed, check **Time and Date**. This has no effect if you do not use time or date variables.

To cancel printing, press the Command and period keys until the print dialog clears the screen. Note that printing may not stop if you are using a print spooler such as the PrintMonitor.

## **Merging Documents**

#### Introduction

The most common application of the **Merge...** command is probably the preparation of customized form letters. There are, however, many other applications of this feature which are not as obvious. An example, useful for teachers, is preparing customized homework or exam problems from templates. Another is the filling out of forms with data provided in another file. Nisus has the capability of producing very professional looking forms which can be filled out using macros or using **Merge...**.

## **Using Merge**

To use the Merge... command, you have to:

- 1. Prepare the Template Document.
- 2. Prepare the Data Document.
- 3. Prepare the Data Definition document if needed.
- 4. Make sure all these documents are in the same folder.
- 5. Open the Template Document and close all other documents.
- 6. Choose Merge... from the File menu.

The examples that follow use form letter preparation because that is the most obvious and common application of Merge.... We refer to the addressee of each letter as the "Customer."

When preparing a number of form letters to mail out you need two files:

- The form letter template, which we will refer to as the Template Document. This contains the skeleton of the document which will be merged with specific data to produce a number of merged documents.
- The list of names, addresses, and any other customer-specific words. The text in each item in the list replaces the specified data fields in the Template document to produce the output of the Merge... command. We refer to the document which contains this list as the Data Document.

The result of a **Merge...** operation is the production of several new documents based on the contents of the Template and Data documents. The new documents can either be sent to a new window in Nisus, or may be sent directly to the printer.

In the following you will find a description of how to prepare the Template Document and the Data Document. You will learn how conditionals are used and then the simple steps to follow to use Merge.... Finally, examples are shown to illustrate these features. The last section describes some more advanced features.

## **Preparing the Template Document**

The Template Document is an ordinary letter prepared as if you were writing to one customer but in which you have to envision all the possible inflections and possibilities you wish to cover in your whole mailing list. When creating the Template Document, it is advisable to use an existing letter written to an individual, or if one does not exist, to prepare an individual letter first. Then you could check through it and replace each person-specific word or phrase with a generic descriptive word placed inside special brackets, for example «name». These generic words become the fieldnames which you will use and which will be replaced with person-specific text during the Merge operation. The Basic Examples on page 179 illustrate a typical Template Document, more advanced examples can be found on page 188. The field names you use must be placed, separated using commas or tabs, as the first record in the Data Document file, in the same order as the corresponding data fields appear in your Data Document. (See Preparing the Data Document below).

To type the special brackets:

Character	Keys to Type
«	Option\
	Shift Option\

The first line of the Template Document may contain the name of the Data Document file inside the special brackets, in the following format:

«DATA My Mailing List»

where "My Mailing List" is the file name of the data document (in the same folder as the Template Document). If this statement is not present, and you choose Merge..., Nisus will ask you to locate the Data Document on disk.

## **Preparing the Data Document**

The Data Document is a document which holds all the customer-specific text. One paragraph is allocated to each customer, and commas (or tabs) separate each *Data Record*. For example, if we want the name and address of a company in one record, you could have the following in your Data Document:

# company,address,city,zip Paragon Concepts Inc.,990 Highland Drive,Solana Beach,CA 92075

The XYX Company Inc.,1234 Dover St.,My Town, CA 99999

The Definition Record

The first line of the Data Document is called the *Definition Record*. It defines the special words you use in the Template Document inside brackets «...» to designate each field. The subsequent lines specify the customer-specific fields to be merged with your Template Document. Each comma (or tab) separated field can be used in more than one place in the Data Document and is referred to in the Template Document by typing its name, exactly as it appears in the Definition Record, but enclosed inside the brackets «». To make things clearer we will rewrite the above sample Data Document file using tabs to separate fields rather than commas:

company	address	city	zip
Paragon Concepts Inc.	990 Highland Drive	Solana Beach	CA 92075
The XYX Company Inc.	1234 Dover St.	My Town	CA 99999
		_The Definit	tion Record

In the actual Data Document you can choose to use either tabs or commas to separate the fields.

The Definition Record can, if required, be placed inside a separate document. In that case, the first line of the Template Document must give the name of that document in the following format:

«DATA Definition File Name, Data File name»

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Either or both file names can be replaced with the question mark followed by an optional message, in which case you will be asked to locate the file. For example:

«DATA ?Locate the Definition File,?Locate the Data File»

Both the Data Document and the Definition Document must be in the same folder as the Template Document<sup>1</sup>.

If you want to add a comma or a tab inside one of the fields, or you want a space at the beginning or end of the field, then you must place straight quotes "..." around those characters or the entire field. For example, in the above Data Document, if you wanted to have a comma after the company name (before the Inc.), your Data Document would be the following:

company address city zip
Paragon Concepts"," Inc. 990 Highland Drive Solana Beach CA 92075
The XYX Company"," Inc. 1234 Dover St. My Town CA 99999

You may, alternatively, put straight double-quotes around the entire field. You may need to do this, for example, if you want spaces at the beginning or end of the field.

In the above example, wherever you have the word «company» in the template document, it will be replaced with the fields in the first column, and the word «address» will be replaced with those in the second column, and so on. This continues until the number of records you have specified in the dialog box is used up, or the records run out.

Each record does not need to have the same number of fields. The first record defines the maximum number of fields which you can

<sup>&</sup>lt;sup>1</sup>Each file name can be replaced with the full path to the file, in which case the files need not be in the same folder. The path is specified from the root directory using colons to separate the name of each folder. For example: MyDiskName:FolderName:NextFolderName:FileName. See "file path" in the index for other explanations.

access in the letter. Any record which has excess fields will have the extra fields ignored; any record which does not have a sufficient number of fields is considered to have the last fields missing.

If you want to use quotes in your Data Document, you can use "Smart Quotes." They will be treated like any other character in the Merge operation<sup>1</sup>.

"Smart" quotes can be entered from the keyboard as follows:

Quote	Keys to Type
***************************************	Option [
#	Shift Option [

## **Choosing Fields**

You can choose how to split each part of the customer-specific text into separate fields. For example, you could treat the whole address as one field, but then you must keep the address as one paragraph and not use returns between lines of the address (use Shift Enter, which inserts a forced line break but keeps it as one paragraph). This is because returns are treated as Data Record separators and so cannot appear inside the data itself unless, of course, you put them inside quotes. It is most common to treat each line of the address as one field. This lets you use any field of the address separately in the letter.

## **Running Merge**

When you have prepared the Template Document and the Data Document and (if needed), the Data Definition document, make sure they are all in the same folder. Close all other documents and open the Template Document. Choose **Merge...** from the **File** menu. You will see the dialog illustrated in Figure 4-93.

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<sup>&</sup>lt;sup>1</sup>If you want to use straight quotes in the Data Document then you must double them up. For example: "Dumbo, ""The Flying Elephant""".

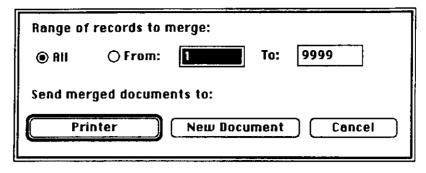


Figure 4-93 The Merge dialog

If you have not inserted the Data Document file name into your Template Document's first line, (see page 173 for an explanation) or if Nisus cannot find the file, you will get a standard open file dialog asking you to locate the data file.

If you have not put the special brackets «» around the fields in your Template Document, you will be reminded by the dialog illustrated in Figure 4-94.

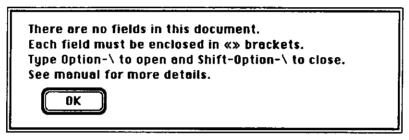


Figure 4-94 The Missing Brackets warning dialog

After a successful merge, the original files remain unchanged. If you have clicked the New Document button in the dialog in Figure 4-93, the merged documents will be in one new document file which will become the new active window. If you click Printer in the dialog, the merged documents will be printed. It is usually advisable to use the Document option for a small test run first. Then, when you are certain that everything works the way you want, you can use the Printer option, or simply print the merged file.

## **Trouble Shooting**

Pay particular attention to the following when using Merge...:

 Misspelling the Data Document name in the Template Document file produces the message "Could not open the DATA document "Data Doc"" as illustrated in Figure 4-95 where the name you have typed is put in place of "Data". Check the name carefully, it must be correct. The file name is not case sensitive: it will be found even if the file name is not in the correct case.

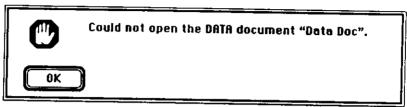


Figure 4-95 The Unfound Data Document dialog

- To make sure the data file always opens, be sure that the Data Document is in the same folder as the Template Document, or you must provide the full path to the file in place of the name. (See page 194 for details on how to construct the path to a file).
- All the opening brackets in your Template Document must have corresponding closing brackets. When you are preparing the Template Document you can choose Balance () from the Edit Tools submenu of the Tools menu. To keep track of the brackets. (See page 325 for more details.) If brackets are not closed, either of the dialogs illustrated in Figure 4-96 and Figure 4-97 can result.

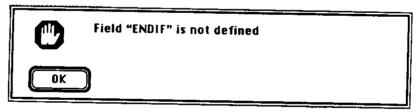


Figure 4-96 An undefined field warning dialog

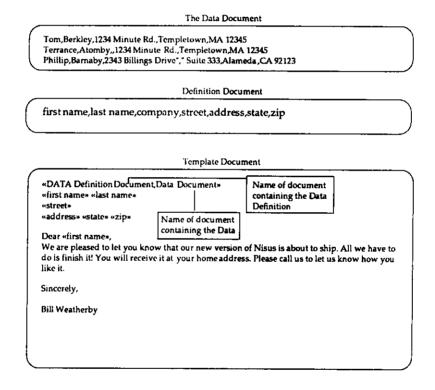
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Figure 4-97 A missing field warning dialog

- Every «IF…» statement must have an «ENDIF» to follow or you will get an error message like the ones above.
- Between the conditionals «IF…» and «ENDIF» every part of the text is significant and any text can be placed there, including returns, spaces etc.

## **Basic Examples**





Tom Berkley 1234 Minute Rd. Templetown MA 12345

Dear Ton

We are pleased to let you know that our new version of Nisus is about to ship. All we have to do is finish it! You will receive it at your home address. Please call us to tell us how you like it.

Sincerely,

Bill Weatherby

Terrance Atomby 1234 Minute Rd. Templetown MA 12345

Dear Terrance,

We are pleased to let you know that our new version of Nisus is about to ship. All we have to do is finish it! You will receive it at your home address. Please call us to tell us how you like it.

Sincerely

Bill Weatherby

Phillip Barnaby 2343 Billings Drive, Suite 333 Alameda CA 92123

Dear Phillip

We are pleased to let you know that our new version of Nisus is about to ship. All we have to do is finish it! You will receive it at your home address. Please call us to tell us how you like it.

Sincerely,

Bill Weatherby

## **More Advanced Features**

The more advanced capabilities of the Merge... command include:

- The ability to use conditionals and only merge parts of data if certain conditions are fulfilled.
- The ability to put up dialogs for keyboard entry of fields (The ASK and SET instructions).

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- The ability to include another document in the same folder as the Template Document (The INCLUDE instruction).
- The ability to control when the next record is to be used (The NEXT and OMIT instructions).

These features, among other things, enable you to put up a dialog to ask for a keyboard entry, to print labels, and to merge all the records of (for example) California customers or all the records for customers outside of California.

Note that all features are controlled by instructions in the *Template* document only. No instructions are ever inserted into the *Data Document*. All instructions have to be placed inside the special brackets: «» otherwise they will be understood to be part of the text.

Conditionals: «IF»...«ENDIF»

Sometimes you will want to insert different text into your Template Document, depending upon whether you are writing to a company or to an individual. This can be done using Merge... by placing conditionals inside your Template Document. The "«If..." statement with the special opening brackets begins a conditional. Following it, you can type any one of the words you have used to define the fields in your Data Document. Using our example, you can check to see if there is a company field by using the statement «IF company». Any text in your Template Document between this statement and the «ENDIF» statement (or the «ELSE» statement if this is present) will be left in the letter if the statement is true. The statement is considered true provided there is something in the "company" field in the Data Document. If the company field is empty<sup>1</sup>, the text enclosed by these two statements will be removed from the final letter, unless you have specified an alternative between them with the «ELSEIF» statement. In that case the text between the «ELSEIF» and the «ENDIF» will be substituted.

<sup>&</sup>lt;sup>1</sup> Just an empty position in the Data Document. This usually implies two consecutive commas or tabs.

The "IF" statement can make other checks, including numeric checks, where the text enclosed by the two statements will only be inserted if the field "Income" meets the specified condition.

**Example**: «IF Income > 50000» You really should join our Country Club. ... «ENDIF»

All the following conditional tests can be applied:

Test Symbol	Meaning
=	. Equal
<> or ≠ (Option =)	. Not equal
>	
<	Less than
<= or ≤ (Option <)	Less than or equal
>= or ≥ (Option >)	

Comparisons may be done numerically or alphabetically. In order for the comparison to be numerical, the values on both sides must be in one of the standard forms. Numbers cannot contain a comma, or a dollar sign, or a hyphen. Examples of acceptable numbers are:

12, -23, 45.5, 12.5E-24.1

Examples of unacceptable numbers:

\$24.45, 50,000, 89-90, (\$, comma, hyphen not allowed).

## The ASK Instruction: Keyboard Entry of Fields

There may be occasions when you need to pause the merge and enter a field from the keyboard. A typical way of accomplishing this is to insert the ASK instruction in the appropriate place in your template document. The general format of this instruction is

«ASK field name = ?Message»

<sup>&</sup>lt;sup>1</sup>This is scientific notation and means 12.5x10<sup>-24</sup>

Example: If the following is placed in the template file:

«ASK company =?Enter company name.»

each time this statement is encountered in the merge process you will get the dialog illustrated in Figure 4-98. You can then do one of three things:

- Enter the company name, then click
   OK
- Click Skip to bypass that record;
- Click Stop Merge to stop the merge, in which case you may end up with a partially merged document.

You can place this statement anywhere in the Template Document. In particular you can also place it between the «IF...» and «ENDIF» statements. If you place it after the «ELSE» statement it will only ask you for an entry when some field is missing.

Example: The following expression in the template document:

«IF company» «ELSE» «ASK company =? Enter company name.» «ENDIF»

will only ask you for the company name for those records in which the company field is missing.

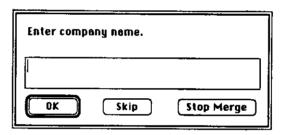


Figure 4-98 The ASK Dialog

The message "Enter company name." need not be there. You can also use one of the already defined fields in the message.

Example: The expression:

«IF Address»«ELSE»«ASK Address =?Enter «company»'s
address.»

would give you a dialog with the message:

"Enter Paragon's address"

assuming that it had picked up the company as "Paragon" in the data record. The entered address would then be used in the merged document.

The SET instruction is also used to enter data from the keyboard. There are two different ways of using SET.

**Example**: In this statement the field "budget" is set to \$100,000 each time the Template document is merged with a data record:

«SET budget = 100000»

Example: This statement presents the dialog and asks you to enter a value for the budget field, but only once: during the merging of the first letter or document. All subsequent merged documents will use that same value of the budget. If you want a different entry for each data record you must use the ASK instruction.

«SET budget =?Enter budget»

You can also set one field equal to another such that it will keep the same value for each record used. For example:

«SET FirstCompany = «company»»

which will set the field FirstCompany to be the name of the company in the first record, and will remain the same for the entire merge operation.

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#### The INCLUDE Instruction

The «INCLUDE Filename» instruction allows you to add to the template file the contents of the file whose name appears in place of "Filename."

Example: To include a "thank you" paragraph or two in the letter to some of your customers, place the following statement at the appropriate point in the file:

«INCLUDE Thank You Note»

"Thank You Note" is the name of a file which must be in the same folder as the Template Document. After the merge, the included file contents will replace the statement.

#### Example:

«INCLUDE ?Locate the file to be included.»

When this statement is encountered you are asked to locate the file to be included. The message following "?" can be omitted.

The included document may itself contain any instructions, including another INCLUDE statement.

#### The NEXT Instruction

Merge can be used to create mailing labels, where you may want 30 or more labels on each page. Each data record normally produces a one page merged document. To force the next record to be merged without a forced page break, you use the instruction «NEXT» which means read the next record and use it for subsequent fields.

Example: If the following is in the Template Document:

```
«DATA My Data File»
«Name»
«Address»
«State» «ZIP»
«NEXT»
«Name»
«Address»
«State» «ZIP»
```

The first two sets of names and addresses in the Data Document would be placed in the same merged document replacing the bracketed field names.

#### The OMIT Instruction

The OMIT instruction is used to omit the next record in the list. It is most useful after an IF test. For example if you have a list of customers and you only want to send letters to those outside the state of California, you can place the following instruction just below the "DATA..." instruction:

```
«IF State = CA»«OMIT»«ENDIF»
```

This will have the effect of omitting all records from California. If the opposite is needed, that is you want to send letters only to those in California, the following statement will do it:

```
«IF State = CA» «ELSE» «OMIT» «ENDIF»
```

(Alternatively you could use «IF State  $\neq$  CA»«OMIT»«ENDIF»)

#### Field Indirection

You can use a field inside a field. For example:

««YourField»»

which allows one more level of substitution: it places in the document the value of the field whose name is the substitution for «YourField». For example:

«SET TheNameToUse =?Which name do you want to use in the salutation?»

The template letter would then begin with:

Dear ««TheNameToUse»»,

If the user responds with "first", the field defined by "first" would be used, alternatively the user can respond with "last" in which case the field defined by "last" would be used. If the user responds with the name of a field which is not defined by the time the statement is reached, the merge operation aborts.

## **Advanced Examples**

## The Data Document Tom, Berkley, Innovation Technology, 1234 Minute Rd., Templetown, MA 12345 Terrance.Atomby,,1234 Minute Rd.,Templetown,MA 12345 Phillip,Barnaby,Computer TechniquesLtd.,2343 Billings Drive\*,\* Suite 333, Alameda,CA 92123 **Definition Document** first name, last name, company, street, address, state, zip Template Document «DATA Definition Document, Data Document» Name of document «first name» «last name» «IFCompany» containing the Data «Company»«ENDIF» Definition «street» «address» «state» «zip» Name of document containing the Data We are pleased to let you know that our new version of Nisus is about to ship. All we have to do is finish it! You will receive it at «IF Company» «Company» or would you rather we sent it to «ENDIF» your home address «IF Company»? Please call us with your home address if you would rather receive it there. «ELSE» «ENDIF» Sincerely, Notice the period needed if question mark not present Bill Weatherby

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#### Merged documents

Tom Berkley Innovation Technology 1234 Minute Rd. Templetown MA 12345

Dear Tom,

We are pleased to let you know that our new version of Nisus is about to ship. All we have to do is finish it! You will receive it at Innovation Technology or would you rather we sent it to your home address? Please call us with your home address if you would rather receive it there.

Sincerely,

Bill Weatherby

Terrance Atomby 1234 Minute Rd. Templetown MA 12345

Dear Terrance,

We are pleased to let you know that our new version of Nisus is about to ship. All we have to do is finish it! You will receive it at your home address.

Sincerely,

Bill Weatherby

Phillip Barnaby Computer Techniques Ltd. 2343 Billings Drive, Suite 333 Alameda CA 92123

Dear Phillip,

We are pleased to let you know that our new version of Nisus is about to ship. All we have to do is finish it! You will receive it at Computer Techniques Ltd. or would you rather we sent it to your home address? Please call us with your home address if you would rather receive it there.

Sincerely,

Bill Weatherby

## **Summary of Commands**

Instruction	Meaning	
«DATA My File Name»	Used in Template to specify location of Data Document.	
«DATA ?»	Gives file locating dialog to locate Data Document.	
«DATA ?Message»		
«DATA Definition Recd, Data File	»	
	Either document name can be replaced with ?Message.	
«Field Name»	. Used to designate field.	
«SET Field Name = value»	.Value can be any text or number.	
«SET Field Name = ?prompt»	Sets value once for all records.	
	Asks for value once for each record.	
«INCLUDE Doc Name»	Document must be in same folder.	
«INCLUDE ?prompt»	Gives File dialog with prompt.	
The following possibilities and syntax illustrate the conditionals:  «IF field»Text«Else»Text»«ENDIF»		
Text Disc. Text NEITH //	True only if field tested has value	
	otherwise the text following ELSE is inserted.	
«IF field = value»Text«Else»Text»«ENDIF»		
	Value can be either numeric or text. Numbers cannot include, commas, \$, or hyphens.	
Other possible replacements for the "=" sign are:		
Test	Meaning	
$<> or \neq (Option =)$ .	Not equal	
> <	Greater than	
$\leq or \leq (Option <)$	Less than or equal	
>= or ≥ (Option >)	Greater than or equal	

## File and Window Management

You can open more than one document at a time in Nisus. Each document opened appears in its own window. This section describes how to manage multiple files and their windows and how to work with window panes. The commands discussed are Catalog... and Open Selection in the File menu and the various commands in the Windows submenu which is located in the Tools menu.

## The Catalog

Nisus has many unique features which help you manage your files. One of these is the Catalog. Its primary function is to give you, from within Nisus, immediate access to the files and folders on your disk, but it has many more useful and powerful applications.

- Its window can stay open during editing.
- Files other than documents are displayed in its scroll list.
- Each kind of file is preceded by its own unique, identifying icon which indicates whether the file is open.
- You can copy its contents onto the Clipboard.
- You can select consecutive or noncontiguous files to open simultaneously.
- You can use it to load glossaries, macro files, dictionaries, and user dictionaries.
- You can use it to add documents (open or closed) to a search list.
- · You can view all types of files in the current folder.
- You can search for a file or document name using the Find/Replace feature.
- You can choose the font, size, and style in which you want the filenames to appear in the Catalog window.
- You can resize and place the Catalog window anywhere you want on your desktop, allowing longer file lists and names to be more visible.
- You can view what disks (or partitions) you have loaded in your Macintosh.

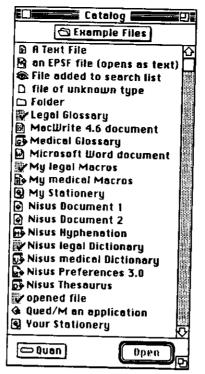


Figure 4-99 The Catalog window enlarged to show all file types

Figure 4-99 shows how each type of file in the Catalog is preceded by its identifying icon. Open documents and loaded files are preceded by shaded file icon with a check mark.

## Changing Attributes of the Catalog

You may change the display attributes of the file names listed in the Catalog by using the Font, Size, and Style menus while the Catalog is the front-most window. To save the appearance of the Catalog, choose Save Preferences from the File menu. This will preserve the settings for future sessions of Nisus.

You may move and resize the Catalog to any position on the desktop. When you zoom the Catalog, it will alternate between its current position and the upper right corner of the screen, where it appears

initially. You do not need to save preferences to save this aspect of the Catalog's appearance.

## Searching for Files in the Catalog

When the Catalog is the front window, you can search for a file or folder name by typing the first few characters of the name.

You can also use the Find/Replace dialog to find file names in the Catalog. It searches the text in the Catalog, which is a Read Only window.

Note that you can also search for a key word in the file name, but then only the key word is selected when it is found. To open the file or folder you have to click on its full name. If you try to use <a href="#">Open</a> with only a part of the name selected, you will get an error message.

## Displaying All Files in a Folder

Choose Catalog... from the File menu and then choose All Files from the Catalog menu which appears to the right of the menu bar to view all types of files in the current folder.

## Using a Search List

Use the Catalog to add files to your search list. When you have created such a list you can search through the designated files even though they are closed. See Searching Multiple Documents on page 212 for more detailed information about using a search list.

If you want to open a second copy of a file, hold the Shift key down when you double-click the document name in the Catalog window. The second copy will be opened as Read-only.

## **Open Selection**

Use this feature to open several files in a project. Copy their file names from the Catalog and paste or type them into your current document or into a separate document. Whenever you want to open them all, select their names in the document and choose Open Selection. For example, if your current document requires frequent reference to particular files which are saved in different places, you might want to list them together in a single file so they can be opened all at once whenever you are working on that document.

The files which you select must be in the current folder or they will ordinarily not be opened.

In order to access a file in a folder other than the current one, precede the file name with a pathname. A pathname describes the path to where the file is stored on disk. The format is

• Disk name:Folder name list:File name

where *Folder name list* is a list of folders separated by colons. The current directory can be omitted *if* you precede the path with a colon.

A full path name is one that begins with a disk name followed by a colon followed by zero or more folder names (each one separated by colons) followed by the file name. An example of a full path name containing the names of two folders and the file called *Chapter 5* is

HD II:Manuals Folder:Nisus Manual: Chapters 5

A partial path name is a path that begins at the current directory, that is a colon followed by zero or more folder names separated by colons followed by a file name. An example of a partial path name containing two folder names is

• :Nisus Manual: Chapters 5

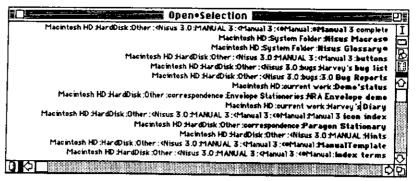


Figure 4-100 A Sample Open Selection File

The macros Copy Pathname and Copy Open Pathnames (in the file Macros for Locating) can help automate this process. To set up a document with nothing but pathnames to files used in a particular project, first open all the appropriate files, then run the macro Copy Open Pathnames (this copies the pathnames to the clipboard). Open a new file and paste the pathnames into it. You can then save the new file as "Open Selection Project X" as illustrated in Figure 4-100 so that when you are ready to resume work on that particular project, all you need do is keep the one file on your desktop, open it, choose Select All from the Edit menu then choose Open Selection from the File menu. All files (unless their names and/or locations on disk have been changed) will then be opened.

#### Windows

#### Windows Submenu

When you have multiple windows on your screen, it is easy to lose track of where they all are. The one you want may be buried behind others. Closing, resizing and moving windows to find it is inconvenient. The **Windows** menu will help you keep track. To bring the window behind the active window to the front choose **Toggle Front 2**. To send the active window behind all others choose **Send Back**.

To bring a window to the front, click on it, or choose its name from the **Windows** submenu of the **Tools** menu.

You can also access the **Windows** submenu by pressing the Option or Command key while clicking on the Title Bar of any window as illustrated in Figure 4-101.

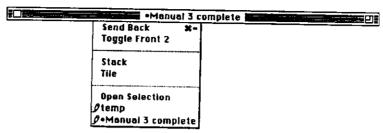


Figure 4-101 The Windows submenu from the Title Bar with Change Indicator icons showing

The Change Indicator icon appears before the name of any file the window of which is open and has been changed.

Click anywhere within a window to select it. This will bring it to the front. The front window is called the active window. It is the window which accepts characters as you type.

Another way to bring a window to the front is to open it using the **Open...** command. If the file is already open, it will just be brought to the front. If you have a large screen, you can place the Catalog window to the side and leave it open. While closed Nisus documents are indicated by a simple file icon the icon of open documents will be grayed and show a check mark in the Catalog window Double-click on the document you want to bring to the front.

#### Zooming Windows

To zoom a window, click its zoom box  $\square$  in the Title Bar. You may also double-click the Title Bar, a feature useful when the zoom box is inaccessible.

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Zooming a window causes it to change its position and size. This allows you to edit and read your document more easily, although it may cover up other windows behind it. You may return the window to its previous size by zooming once more. On a small screen the window will fill the screen. On a big screen it will assume a size slightly larger than the full page but will not fill the screen.

If you hold Shift while zooming a window, the active window and the window behind it will be arranged side-by-side. This is useful for viewing the two most recently active windows simultaneously. See Synchronous Scrolling of Two Windows, page 200.

#### Stacking and Tiling Windows

To arrange all the windows in an orderly fashion choose **\$tack** or **Tile**. When you **\$tack** windows they are placed on top of one another as in Figure 4-102.

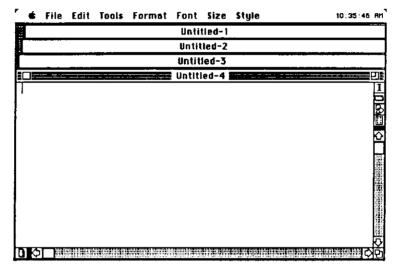


Figure 4-102 Stacked windows

The currently active window is placed on top of the rest, with the Title Bar of each window showing. This way, you can see the names of all your windows and select the one you want to bring to the front.

You can stack all windows by holding Shift and Option while zooming the front window.

Windows can also be arranged in the tiled format. This will fit as many of your windows as possible into the available screen space without overlapping them. Choose **Tile** to produce the result seen in Figure 4-103.

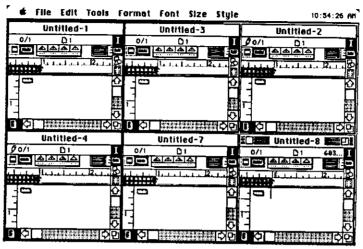


Figure 4-103 Tiled Windows

A convenient way to work with tiled windows is to leave all but one of them tiled, zooming just the one you wish to work with. This will cause the window to fill the screen, so that you can see as much of your document as possible. When you have finished working with the window, zoom it back into tiled formation and repeat the process.

- Tile the top two windows by pressing Shift while zooming the front window. You can also tile all windows by pressing Option while zooming any one of them.
- It is possible to lose a window by moving it off your screen. If just a small part of it is showing, it may not be easily noticeable. To bring it to the center of your screen, choose its name from the <code>Windows</code> submenu of the <code>Tools</code> menu or from the <code>Windows</code> menu which you can pull down from the <code>Title</code> Bar while pressing the Option or Command key.

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#### Working with Background Windows

Background windows are those which are not active. It is sometimes convenient to work with a window without making it active (bringing it to the front). You can use the mouse to move the insertion point and select text in background windows just as in the active window.

To affect a background window, hold down Command while you press the mouse button. This will enable you to select text, change a control, scroll or move a window without making that window active. This is very helpful, because bringing a window to the front will often cover the window you are working with.

For example, when using the Find/Replace dialog, you can scroll through the window behind it and even set the position of the insertion point without bringing it to the front. If you brought it to the front, it would cover the Find/Replace dialog.

- Because the close box is not visible in background windows, you are protected against closing them accidentally. To close a background window click in the region where the close box is normally displayed while pressing both Command and Option.
- When you apply a command that brings up a dialog, the decisions made in that dialog will apply to all open windows if you hold down the Option key while clicking a button. For example, to save all open windows at once, hold down Option while choosing **Save**. Similarly you can apply the following commands to all open windows by holding down Option and choosing:
  - Save (becomes save All Changed)
  - Close (becomes Close All)
  - Revert To Saved (becomes Revert All Changed)
  - · Any command in the Display submenu
  - Show Headers/Footers icon, Paragraph Rulers icon
  - Select All (becomes Select All Docs)
  - Print... (becomes Print All)
  - A Font, Size, or Style menu command

See the Nisus Quick Reference Guide pamphlet for more details.

When using the **Print fill** command in conjunction with background printing using MultiFinder, the Print Monitor will only display the name for the first document, but, in fact, all files will be printed correctly.

## **Synchronous Scrolling of Two Windows**

When you are viewing two documents with similar contents, you may want them to scroll together. This is especially useful for comparing an original document with a revision. Choose **Sync. Scrolling** from the **Edit Tools** submenu in the **Tools** menu to cause the top two windows to scroll together.

When either window's scroll bar is used, both windows will scroll the same amount—the scroll bars are locked together. To turn off **Sync. Scrolling**, choose it again.

When a window's scroll bar is synchronized with another window's scroll bar and the Info Bar is shown for that window, the Sync Scrolling icon appears in the Info Bar.

- You can also scroll the top two windows together by holding down the Shift key when clicking on the scroll bar of the top window.
- To align the windows side-by-side, make sure they are the top two windows by clicking in one and then clicking in the other. Hold Shift and zoom one of them.

## **Splitting Windows**

To look at separate parts of your document at the same time you can split your window—horizontally, vertically or both—into panes as shown in Figure 4-103.

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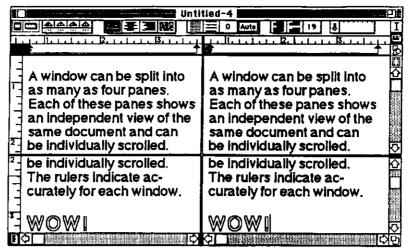


Figure 4-103 Splitting a window into panes

Drag the Horizontal or Vertical Split Screen Bar handle along the scroll bar. Release the mouse where you wish to divide your window. The window will look the same except for the split line running through it, and the scroll bar will be split into two scroll bars.

As you edit your document in any pane, changes affect all panes because all panes are views of the same document. Any selection made in one pane will be selected in all other panes when they are activated.

When you use the scroll bars, you activate the pane that is controlled by that scroll bar. In windows which are split both horizontally and vertically, the four panes created by the double split can be scrolled by four independent scroll bars. The last horizontal and vertical scroll bars used determine the active pane.

You can think of the four panes as a grid with four sections: top and bottom on the left side and top and bottom on the right side. To activate the top left section, scroll in the bottom left bar (to locate the insertion point on the left side), then scroll in the top right bar (to locate the insertion point in the top half of the window).

The pointer becomes an I-beam  $\int$  when it is moved over the active pane. In any other pane, it is an arrow  $\bullet$ .

You may close a pane by dragging the split bar to one end of the scroll bar or by double-clicking it.

## Windows and Multiple Screens

When a window is opened, Nisus displays it on the screen that contains the pointer. If you have multiple screens, you can open one window on one screen, move the pointer over to the second screen and open another window. The first window will be displayed on the first screen and the second window on the second screen.

Dialog boxes are displayed on the screen that the pointer is on.

Stacking or tiling windows will affect only those windows which intersect the screen where the pointer is located.

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# Finding and Replacing Text

This chapter introduces you to the basics of the find and replace facility of Nisus. It explains how to find some occurrence of text or graphics and replace it with another. It shows how to set the search options and then explains how you can search for text in a particular font, style or size. It also explains how to search in several open or closed files. The concept of pattern matching is fully developed in Chapter 12, page 331 and Chapter 13, page 353

Although most of what follows in this chapter is geared to finding and replacing text, it also applies to graphics on the text sheet. See Chapter 7: Working with Graphics, page 233 for an explanation of the text and graphic sheets.

Nisus offers a wide range of find and replace capabilities. You can search for text or graphics in three ways:

- Normal Search: Nisus searches for whatever word, phrase, or sequence of characters (and graphics) is specified. It can also restrict searches to text in a particular font, style, size or any combination.
- PowerSearch: With the help of menus, Nisus offers a simple way to write descriptive searching patterns used for pattern matching. This is explained in Chapter 12.
- PowerSearch+: is a very powerful method for finding patterns and character sequences using a form of shorthand called "regular expressions" dealt with in Chapter 13.

You can search for text or graphics in:

- · A selected area of text
- The current file
- All open files
- · All files in the search list

You can specify whether to search forward or backward from the insertion point. You can tell Nisus to continue searching and wrap around the end of the document for a forward search, or the beginning for a backward search.

You can also search and replace Character Graphics. See Chapter 7: The Text Sheet: Character Graphics page 236 for the definition of Character Graphics. You can copy a graphic, paste it into the Find/Replace dialog and then search or replace it.

The Nisus Find/Replace dialog window can be thought of almost as any other window. When it is active almost all of Nisus' menus are still enabled. You can open various files, sort paragraphs, show and edit your clipboards, access your Glossary, use your macros, number lines, etc.

## **Finding Literal Text**

1. Choose Find/Replace... from the Tools menu. The Find/Replace dialog appears on your screen as shown in Figure 5-1.

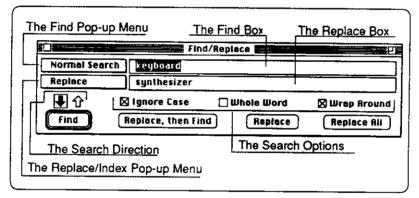


Figure 5-1 The Find/Replace Dialog

2. Type the text you want to find in the Find box. (The Find box can contain more than one line; sometimes not all is visible. Move the I - beam up and down to see all the lines or click the Find/Replace window's zoom box to expand it.)

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3. Click the desired search options and when you are ready to start the search, click find or press Return or Enter.

The first occurrence of text closest to the current selection or insertion point will be selected (above or below, depending on the direction of search). Nisus can display a dialog whenever a match is not found as illustrated in Figure 5-2, or simply beep. You can set the searching preferences either way, as explained page 445.

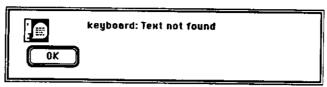


Figure 5-2 The literal text was not found

To find the next occurrence of text, click Find again or press Return or Enter. When you have finished, close the Find/Replace dialog.

You will also see the **Search Method** menu shown in Figure 5-3 appear at the far right of the menu bar.



Figure 5-3 The Search Method menu

## Search Options in the Find/Replace Dialog

Ignore Case

To make Nisus match both uppercase and lowercase characters, type the characters exactly as they should be found and uncheck **Ignore Case**. A search for the word "Happy" would not find "happy." With

#### Whole Word

To prevent Nisus from finding parts of words, check **Whole Word**, so that a search for the word "hat" would not stop at the word "that."

You may check **Whole Word** to search for a phrase of several words. The only condition required is that the text being searched begins at the beginning of a word and ends at the end of a word. For a definition of what constitutes a word in Nisus, see **Word Definition** in Nisus page 376.

#### Wrap Around

If **Wrap Around** is checked, the search starts at the insertion point or the selected text, and continues to the end of the document and then starts over from the beginning. With **Wrap Around** unchecked the search terminates at the end of the document.

#### Search Direction

To change the direction in which Nisus searches relative to the current selection or the insertion point, click on one of the two arrows in the Find/Replace dialog. Click the down arrow icon to search forward (from the insertion point to the end of the document). Click the up arrow icon to search backward (from the insertion point to the beginning of the document).

## **Finding White Space**

You can search for white space characters such as tabs, returns, and spaces. When you import documents from data base programs or communication programs, you may find that it is essential to search

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for tabs and replace them with returns or vice versa. To display the white space as symbols, choose **Space**, **Tab** & ¶ from the **Display** submenu of the **Tools** menu.

Hold the Shift key down and press Return or press Tab respectively to add a return or a tab character to the find text in the Find box or the replacement text in the Replace box. Nothing will be visible.

Be careful when deleting return characters which have anchored to them graphics, rulers, headers and footers, these will be removed when their anchoring return characters are deleted.

#### Finding All Occurrences

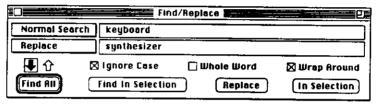


Figure 5-4 The Find/Replace dialog with Option pressed

To find all occurrences of a particular word or expression typed in the Find box, press the Option key and click the **Find All** button (as illustrated in Figure 5-4). If the Find/Replace dialog window is not the front window, press the Option key and choose **Find All** from the **Tools** menu. This will select every occurrence of the found text and give you a dialog box illustrated in Figure 5-5 telling you how many occurrences of that expression appear in your document.

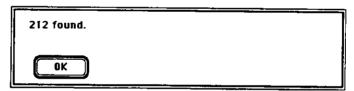


Figure 5-5 The Result of the Find All Command

# **Finding Text with Attributes**

You can set the attributes of the text in the Find and Replace boxes directly from the menus. You can also paste text with attributes into the Find/Replace dialog. Changing the attributes in the Find box will make the search attribute-sensitive. Changing the attributes in the Replace box is discussed later.

#### Font and Size Attributes

To search for text in a particular font or size, type the text to be found in the Find box, select whatever portion is to be attribute specific, and choose the appropriate font, size, or a combination of these from the Font and Size menus. To search for text without regard to any font or size, choose Any Font or Any Size from the Font or Size menu respectively. For example, a search for the word "hello" in Helvetica and Any Size would match the word "hello" (9 point Helvetica) and also "hello" (14 point Helvetica), but "hello" in the Times font would not be found.

## Style Attributes

To search for text in a particular style or a combination of styles, uncheck + Any Styles from the Style menu and choose the appropriate styles from the Style menu. + Any Styles matches any styles other than plain. For example, with Bold and + Any Styles checked, a search for the word "pretty" (Bold) would also find "pretty" (Bold Italic) and "pretty" (Bold Underline) but would not find "pretty" (Plain).

## **Finding Text Only (Ignore Attributes)**

To search for text without regard to any attributes, activate the Find/Replace dialog and check Find Text Only in the Search

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Method menu. You can achieve the same result by selecting the typed text in the Find box and choosing Rny Font and Rny Size from the Font and Size menus, respectively, and then choosing Plain and checking + Any Styles from the Style menu.

#### **Finding User Styles**

A user style is identified by the name you give it, not just by its attributes. For example if you create a user style called "Boldvetica" which is 12 point Helvetica Bold, text typed in Boldvetica will look the same and print the same as text typed using 12 point Helvetica Bold. The two are indistinguishable to the user, yet they are, in fact, recognized by Nisus as different. You would notice the difference if you edited Boldvetica's size from 12 to 14 point. The text in Boldvetica would immediately reflect the change, whereas the text in 12 point Helvetica Bold would remain unchanged.

Nisus recognizes the difference between text in a user style and text with identical attributes but not in the user style. When the Find/Replace dialog is the front window you can search for any user style as though it were any other style. Select the text in the Find box and choose the desired user style or styles from the **Style** menu. If you paste text with a user style into the Find/Replace dialog, the user style name will appear in the **Style** menu as checked as well as all of its attributes. Therefore in your search for text in a particular user style you will only find text in that user style.

## **Replacing Text**

- 1. Choose Find/Replace... from the Tools menu.
- 2. Type the find text in the Find box. Set the search options.
- 3. Click in the Replace box and type the new text.
- 4. Click find or press Return or Enter when you are ready to start the search. If the text is found:
  - Click Replace, then Find to change this occurrence of text and then find the next one. This is useful when you want to replace some, but not all, instances of the old text.

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- Click Replace to change this occurrence only.
- Click Replace All to replace all occurrences of the text from the selection to the end (or throughout the entire document if Wrap Around is checked).

To replace a selection of text and then find the next occurrence of the old text without activating the Find/Replace dialog, press the Shift and Command keys and choose **Replace & Find** from the **Tools** menu.

CAUTION: If no text is typed in the Replace box and Replace is clicked, then the found text will be replaced with nothing. That is, it will be removed.

## Finding and Replacing in a Selection

When you wish to find and replace in a selected region of text only, press the Option key. The buttons in the Find/Replace dialog will change as illustrated in Figure 5-4. Click either <code>Find In Selection</code> to find all occurrences in the selected region or <code>In Selection</code> to replace all in that selected region. You can also do a replace all in a selected region by pressing the Option and Command keys while choosing <code>Replace in Selection</code> from the <code>Tools</code> menu.

## **Replacing Text with Attributes**

To make the replacement text have specified font, size and styles, select it, uncheck + Any Styles and choose the appropriate font, size, and styles from their respective menus. For example, a replace of all found occurrences of the word "fish" (Bold and + Any Styles checked) with "birds" (Outline checked and + Any Styles unchecked) would find "fish" (Bold), "fish" (Bold Underline), and "fish" (Bold Italic) and replace them with "birds" (Outline) but would not find "fish" (italic). Note that if the replacement text had + Any Styles checked the styles of "fish" would be applied to "birds" so that "fish" would be replaced by "birds" (Bold, Outline, Underline).

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Note that for the replacement text to be attribute-sensitive, Replace Text Only must be unchecked in the Search Method menu. This command is normally checked by default but when you select the replacement text and choose a font, a size, or a style it is automatically unchecked.

## Replacing Text Only; Ignoring Attributes

If you wish the replacement text to take on the same attributes (font, size, and style) of the found text make sure **Replace Text Only** from the **Search Method** menu is checked. When this command is checked, the replacement text takes on the attributes of the *first character* of the found text.

Note that if a graphic is part of your replacement pattern and Replace Text Only is checked, the replacement will replace what it finds with the unlikely ASCII code 01 in place of the graphic.

#### Cancelling a Search

To cancel a search press Command **%** and hold down Period (.) until the search stops and you get a dialog which reads "Process aborted by user." If you stop a **Replace All** command before it completes the replace, no replaces will have been made. After such an abort you can get a partial replace by choosing **Redo Change All** from the **Edit** menu.

## Finding and Replacing Graphics

You can find and replace character graphics, that is graphics that have been pasted on the text sheet. You cannot search for graphics on the graphics sheets. If you check the **Find Text Only** command from the **Search Method** menu, the search for a graphic will find any graphic in the text. If **Find Text Only** is not checked, the search for a graphic will find only those graphics whose pixel height and width, as indicated in the **Size** menu (**Other**) match exactly the one

pasted into the Find box. Because graphics usually differ in size, the search often identifies the searched-for graphic uniquely. You cannot create a graphic in the Find/Replace box, but you can paste one there. (A character graphic has an ASCII code equal to 1.)

You can replace a graphic with a graphic or with text and vice versa, but you must have the **Replace Text Only** command on the **Search Method** menu *unchecked*. Graphics can also form a part of a searching pattern just like any regular character.

Note that you cannot search for graphics on the graphics sheet. Though the **Find/Replace...** command is enabled while on the graphics sheets, any searching done will not select or replace text until you return to the text sheet.

# **Searching Multiple Documents**

Normally when using the Find/Replace dialog, only the front document is searched. In Nisus, multiple documents, whether open or closed, can also be added to the list of searched documents. When the Find/Replace dialog is active, the **Search Method** menu, as shown in Figure 5-3, page 205, appears on the far right of the menu bar. The **Search Method** menu contains the following commands:

- Search Active File
- Search All Open
- Search File List

Choose Search Active File or Search All Open as appropriate. The Search File List command is highlighted and checked when a search list is created.

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#### Creating the Search List

To search through closed documents, you first create a search list. To do this, activate the Catalog window by choosing **Catalog...** from the **File** menu. When the Catalog window is active, the **Catalog** menu appears on the far right of the menu bar.

#### Adding Files to the Search List

To add a document to the search list, select its name from the Catalog window and choose **fidd To Search List** from the **Catalog** menu. Folders cannot be placed into a search list directly; you must open them and select the files to be added to the search list. Note that documents added to the search list do not have to be in the same folder. All documents on the search list are marked with an eye icon as illustrated in Figure 5-7.

#### Removing Files from the Search List

To remove a document from the search list, select the document and choose **Remove From Search List**. Documents that have been searched are automatically removed from the search list.

- The menu commands Add To Search List and Remove From Search List are enabled when files are selected in the Catalog window, as illustrated in Figure 5-6. The Catalog menu appears only when the Catalog is the front window.
- It is possible to remove all files from the search list simultaneously. Press the Option key and choose Clear Search List from the Catalog menu.

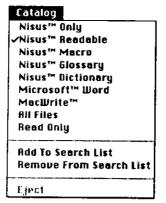


Figure 5-6 Catalog Menu showing Search List Commands



Figure 5-7 Files in the search list are preceded by an eye icon

#### Global Search

After creating the search list, reactivate the Find/Replace dialog and make sure that the **Search File List** command in the **Search Method** menu is checked. Finally, choose the search options and press Return or Enter to start the search. When a match is found, Nisus opens the document containing the matched text, and scrolls to the selected text. As documents are searched they are removed from the search list.

You can save and restore the search list using the supplied macros Save Search List and Restore Search List.

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## **Tips and Special Techniques**

As you become more familiar with the find and replace facility of Nisus, the following tips and techniques will be very useful.

- Text can be selected, copied and pasted from any document into the Find/Replace dialog and vice versa.
- To insert an explicit return or tab in the Find/Replace dialog press Shift and then press Return or Tab.
- Most buttons and check boxes in the Find/Replace dialog have Command key equivalents, press Command to see them.
- The Tab key moves the insertion point back and forth between the Find and Replace boxes. If there is text in either box, that text is selected.
- When using Find/Replace be aware of any extra spaces or tabs in the search or replace text. (Choose **Space**, **Tab** & ¶ from the **Display** submenu of the **Tools** menu).
- To find the next occurrence of text without bringing the Find/Replace dialog to the front, press Shift and choose Find Next from the Tools menu.
- Select text and choose Copy to Find from the Tools menu to enter text directly into the Find box without bringing the Find/Replace dialog to the front. This can also be done by pressing Command while double-clicking and dragging to select the text (only if you have not created and loaded a Command macro). Note that the text selected will be entered into the Find box in the same font, style, and size as it appeared in the documents, however, it will turn on the Find Text Only command in the Search Method menu. The Search Method menu will not appear unless the Find/Replace dialog is the front window.
- Select text press the Option key and choose Copy to Replace from the Tools menu to enter text directly into the Replace box without bringing the Find/Replace dialog

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to the front (this works only if you have not created and loaded an **Option** macro). Note that the text selected will be entered into the Replace box in the same font, style, and size as it appeared in the documents, however, it will turn on the **Replace Text Only** command in the **Search Method** menu. The **Search Method** menu will not appear unless the Find/Replace dialog is the front window.

- You can use the Find/Replace dialog to index all occurrences of a word or phrase. See Chapter 12 for more details.
- To clear the Find/Replace dialog of all text and attributes tab from one text editing box to the other and clear each one in turn. Then close the window. When you reopen the window, it will be in Any Font, etc.

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# Working with the Spelling Checker and Thesaurus

The file: Nisus Thesaurus is actually a combination dictionary and thesaurus, displaying both definitions of the less common meanings of words and their synonyms. The Spelling Checker has 135,000 words while the Thesaurus has 1.4 million responses at 40,000 entry points.

## **Loading the Dictionary**

When you are ready to check the spelling of your document choose **Spelling...** from the **Tools** menu. If this is the first time you have checked your spelling, Nisus will attempt to locate the dictionary. If the dictionary is in a folder other than Nisus or the System Folder you will be asked to find it. Figure 6-1 illustrates this dialog. If you want to keep your dictionary in a different folder, you can avoid this dialog by setting your dictionary preferences in advance (see Dictionaries Preferences page 451).

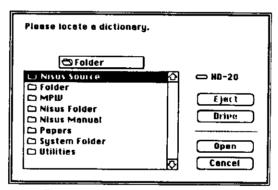


Figure 6-1 Finding the Dictionary

If you have more than one dictionary supplied by Paragon, you may change dictionaries at any time by opening another one through the Catalog or Open File dialog.

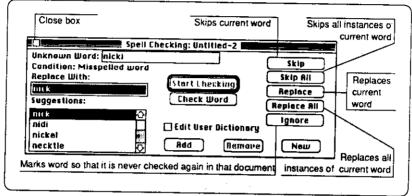


Figure 6-2 The Spell Checking dialog

# Spell Checking

To check the spelling of the front document choose **Spelling...** from the **Tools** menu. This brings up the Spell Checking dialog illustrated in Figure 6-2. If you want to check for errors in headers, footers, footnotes, macros or the glossary, their windows have to be open and active.

When an unknown word is found, you will be given as many as 16 correctly-spelled suggestions. The spelling checker also flags words

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<sup>&</sup>lt;sup>1</sup>For information on what dictionaries are available, call Paragon at 619-481-1477.

it does not know, lowercase letters at the start of sentence, and repeated words. This does not necessarily mean that they are misspelled. What the Spelling Checker does in these cases is explained in Checking for Other Errors on page 225.

When the Nisus Spelling Checker finds a word not in its dictionary, it suggests alternatives and allows you to correct it. You can use the Spelling Checker to check individual words which are typed directly into its dialog. The Spelling Checker is available at all times.

You are able to set the starting point of the spelling checker by changing the position of the insertion point. Ordinarily, changing the insertion point brings the document window to the front, but pressing and holding the Command key while you scroll and/or move the insertion point allows you to leave the document window behind the Spell Checking dialog, and thus to continue spell checking.

When you do click in the document window to move the insertion point you will be required to restart the spelling checker. Click **Start Checking** from the new position.

When using machines with large or multiple screens, the Spell Checking dialog can be visible at all times. This allows all the suggestions or words in the user dictionary to be available while editing a document.

You can use the arrow keys on the keyboard to navigate in the Spell Checking dialog.

#### **Memory of Position**

The spelling checker remembers where it is in the document even when its dialog is not the front window or is closed. If you bring the Spell Checking dialog to the front, you can continue checking from where you stopped. It will forget its position if you edit the document or bring another document to the front and you will have to click Start Checking in the spelling dialog.

## **Spell Checking Your Entire Document**

To spell-check an entire document, place the insertion point at the spot where checking is to begin and click **Start Checking** in the Spell Checking dialog.

Words are checked between the insertion point and the end of the document, and then checking continues from the beginning of your document to the starting point. When the whole document has been checked, the Spelling Checker beeps and displays the message No more misspelled words found.

During the spell checking session you may want to edit your document directly. If this happens you must restart the spell checking session by clicking **Start Checking** once again.

## Spell Checking a Selection

If you have a selection rather than an insertion point in your document, only that selection is spell-checked. The spelling checker starts at the beginning of the selected text and stops at the end. Then the insertion point is placed back at the beginning of the selection.

## Spell Checking a Word

You can check the spelling of a word by typing it in the **Replace** With box of the Spell Checking dialog. Click Check Word to verify the spelling of the word in the **Replace With** box. This will not interfere with the process of spell-checking the entire document. If the word is misspelled suggestions will be given as in Figure 6-2. If it is spelled correctly you will see the message The word is spelled correctly in the Condition field.

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## The Spell Checking Dialog

#### The Replace Suggestions

When the Nisus Spelling Checker finds a word not in its dictionary, it suggests alternatives and allows you to correct it. You can use the Spelling Checker to check individual words which are typed directly into its dialog. The suggestions given are based upon both the actual characters and the phonetic sounds of the unknown word.

Figure 6-2 on page 218 shows the Spell Checking dialog with nicki as a misspelled word. A phonetically chosen suggestion lower down in the scroll list is knack. It uses a kn combination in place of the n in the unknown word since these phonemes make the same sound.

If you cannot find the word you want in the suggestion list click the unknown word in the dialog to bring it into the **Replace With** box and edit it.

#### Replacing words

Use the scroll list to view suggestions for misspelled words. Click one of them to place it in the **Replace With** box. Replace the word in your document with the word in the **Replace With** box by clicking **Replace**.

#### Skipping Words

If the Spelling Checker comes upon a word that it does not recognize, yet is accurately spelled, clicking will leave the unknown word unaltered. Click Skip All to have the spelling checker ignore all appearances of a word during a spell checking session.

Instead of skipping a correctly spelled but unknown word, you may add it to the user dictionary. When such a word is found, click Add.

If no user dictionary is loaded, Nisus prompts you to locate a User Dictionary. If you wish to create a new User Dictionary, click New ,

then click Rdd. Any time spelling is checked, Nisus will also automatically search for those newly added words in your customized dictionary, provided that it has been loaded. If a user dictionary is loaded, the Spelling Checker will not flag the words in it. The user dictionary is explained in detail beginning on page 223.

There are a variety of ways to have the Spelling Checker skip words that might otherwise be flagged.

- Skip the word in a session of spell checking by clicking skip or skip RII .
- Apply a User Style with the attribute Ignore to a word or phrase.
- · Add them to a user dictionary.

#### Skip All

Words skipped with Skip All are kept in memory, so spelling checking is faster than using a user dictionary, but they are forgotten when you quit Nisus.

The Spelling Checker is session oriented, rather than document oriented. Any new words Nisus learns when you click **Skip All** are remembered across documents until you quit the program. This makes it easy to check many documents at once.

If you accidently click **Skip BII** on a misspelled word, you will have to quit Nisus and reopen it to make the spelling checker erase its memory. It is recommended that you add your own special words to your own custom dictionary.

When the Spelling Checker dictionary is re-loaded (by clicking on the spell checking dictionary you have loaded, either Nisus Dictionary or Nisus Thesaurus, whichever has the check mark showing beside its name in the **Catalog** window) all memory of the "Skip All" list is lost. This releases the memory taken up by that list. This is the easiest way to clear that list during a spell checking session.

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#### Ignore

Click Ignore to have Nisus ignore a particular word in a file that it does not recognize. This will cause the Spelling Checker to mark a specific word and bypass it without entering it into a user dictionary. The Spelling Checker will never again flag that word in that file/document. The Spelling Checker will, however, flag that word in all other files in which it appears, unless it has been "ignored" there as well.

You can create a user style that will be ignored by the Spelling Checker. Choose **Define Style...** from the **Style** menu, then, when you determine the various attributes of the style, click **Ignore Spelling** This is especially useful if your text has extensive numerical strings, expressions in foreign languages or uses foreign language, or character fonts that would not be recognized by the Spelling Checker.

#### Ignore Spelling

You can define a user style with the attribute **Ignore Spelling**. This style can then be applied to words, phrases or formulas that you want the Spelling Checker to avoid. This is particularly useful if you use foreign language or symbol fonts or if you use specialized terminology that places option or number characters in the middle of words. For detailed information on how to define user styles see User Styles and Style Sheets beginning on page 110.

## **User Dictionaries**

You can increase the vocabulary of the spelling checker by adding words to a user dictionary. You can have any number of user dictionaries, but only one of them can be used at a time in addition to the main dictionary.

## **Creating a User Dictionary**

You can create additional user dictionaries by clicking New while the Spell Checking dialog is open. Type its name and click New in the dialog that comes up, as shown in Figure 6-3.

When you open Nisus, the user dictionary Nisus User Dictionary is loaded automatically, provided it is in the same folder as Nisus or in the System Folder (or have set your Dictionary Preferences differently). If you wish to use a different user dictionary, double-click on its name in the Catalog window. This closes the current dictionary and opens the new one. You can verify this by checking the **Edit User Dictionary** box in the Spell Checking dialog and then looking at its contents.

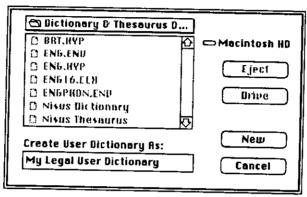


Figure 6-3 Creating a user dictionary

## **Editing a User Dictionary**

To edit the current user dictionary, check **Edit User Dictionary** in the Spell Checking dialog. The dialog will then display the contents of the current user dictionary in its scroll list as illustrated in Figure 6-4.

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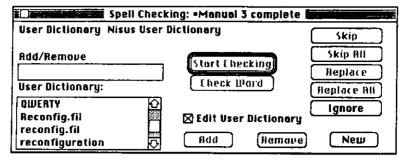


Figure 6-4 Editing the user dictionary

To add a word, enter it into the <code>Add/Remove</code> box and then click <code>Remove</code>. To remove the word, click <code>Remove</code>. You can transfer words from the scroll list to the <code>Add/Remove</code> box by clicking them. Then you can edit them and click <code>Add</code> to replace the old version of the word.

Uncheck Edit User Dictionary to resume spell-checking.

- When the spelling checker finds an unknown word, it can be added to the current user dictionary, if it has been loaded, by clicking on the activated Bod button. Any user dictionary you have named "Nisus User Dictionary" and placed in the same folder as the Nisus application or in your System Folder will load automatically.
- User dictionaries are case-sensitive, so pay close attention to the capitalization of words in the user dictionary.
- You can create an individualized user dictionary by creating a file with a word list and running the macro Rdd to User Dictionary.

## **Checking for Other Errors**

The Nisus Spelling Checker does more than just check for misspelled words. It looks for other possible errors. This section explains the following messages:

- · First word of sentence not capitalized
- Incorrectly formed word
- Misspelled word
- · Repeat of last word

## First Word of Sentence not Capitalized

The Spelling Checker assumes that a word at the beginning of a sentence should be capitalized. It flags words that begin with a lowercase after a period. It also locates sentence fragments as in:

"The church on the corner was finished last month. down the street. I visited it a week ago..."

In this example the Spelling Checker will flag the word down, the remnant of an old sentence that was meant to be deleted.

## **Incorrectly Formed Word**

When correctly spelled root words are combined with improper prefixes or suffixes in a document, the Spelling Checker will give you the **Incorrectly formed word** message. If, however, these words are checked for spelling as individual words, their condition will be shown as **Misspelled word**.

- prememory
- wordest

## Misspelled Word

This is the message given when a word is not found in the dictionary. It may be misspelled or just unknown to the spelling checker.

If the word is spelled correctly, you should add it to your user dictionary by clicking the <a href="Mod">Mod</a> button. This will prevent it from being flagged as misspelled in the future.

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#### Repeat of Last Word

You are alerted when a word is immediately repeated. It is usually a mistake when words are repeated in this way:

· The ferry will take us across the the water.

Sometimes, however, it is correct:

· I am very very happy today.

## **Using the Thesaurus**

To look up a word in the Nisus Thesaurus, select the word in your document, then choose **Thesaurus...** from the **Tools** menu. You will see the Thesaurus dialog shown in Figure 6-5.

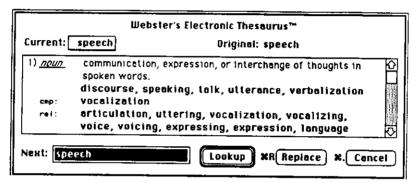


Figure 6-5 Thesaurus dialog displaying "speech" in the Word Box

The purpose of the information in the dialog is to help you find synonyms. To do this, the following information is displayed:

- The part of speech
- A concise definition
- · Synonyms for that definition

You can replace the selected word in your document by double-clicking on the synonym in the Thesaurus dialog. You will see it momentarily selected, then the dialog will disappear, and the word will replace the previous selection in your document. Alternatively, you can click the word once, then click [Replace].

You can look up most synonyms listed in the Thesaurus dialog by clicking it once and then clicking Lookup (be careful, as double-clicking places the word in your document). Clicking a synonym transfers it to the Next box. You may also press Return instead of clicking the Lookup button. This is helpful when you have just typed in a word and have your hands on the keys.

A history of the last 10 words looked up is kept in the pop-up menu to the right of the **Current** box. To see these words, click on the word displayed in the **Current** box, as illustrated in Figure 6-6.

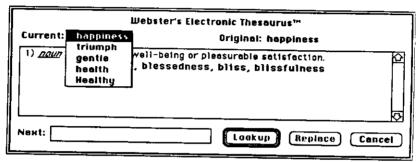


Figure 6-6 Thesaurus word history with: Healthy, health, gentle, triumph, happiness

To look up any of these words once more, just choose them from this pop-up menu. This list is remembered until you quit Nisus.

Click Cancel to close the Nisus Thesaurus dialog without replacing the selection in your document.

## Interpreting the Results

Meanings are listed in an order that reflects the usefulness of their synonyms. This means that the most common meanings, which would

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be first in an ordinary dictionary are sometimes listed much later in the list. In fact, the most common definitions of a word may not be listed at all. Only meanings leading to synonyms are shown.

A number of abbreviations are used in the Thesaurus in the left margin beside secondary lists of words. These will help you decide which direction your word search should continue.

• syn: Synonyms: This list will show you

words that have the same or very nearly the same meaning as the original word. The words in the synonym list share a common *denotation* though they may

differ in connotation.

•rel: Related: These words are near

synonyms. They have the same implications as the original word, though

their emphasis may be different.

•ant: Antonyms: The words in this list

contradict the meaning of the original word with equal or nearly equal force.

•con: Contrasted: These words in some sense

oppose the meaning of the original word though they are not in complete

contradiction.

•cmp: Compare: These words suggest a "see

also" list that express a related idea

possibly worthy of exploring.

When you look up a word which is not found, you will be given a list of up to 16 alternate words. This does not necessarily mean that the word is spelled incorrectly; it means that the word is not in the thesaurus. The alternate words are chosen using both the typographical and phonetic qualities of the unknown word. Therefore, you will see some alternatives which have spellings that may differ quite a bit, but sound the same as the unknown word, as illustrated in Figure 6-7.

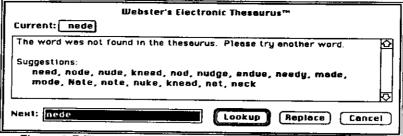


Figure 6-7 Thesaurus alternate selections for the typo, "nede."

There are also many words which try to guess at the correct spelling by changing or deleting letters of the unknown word. These words are an attempt to guess the word you intended to type.

## Intelligent Synonyms

Synonyms are displayed in the same case (upper or lower) and tense as the word you looked up. This feature helps you find synonyms which can be immediately substituted for your previous word. You do not need to change the case or tense of the synonyms.

Words cannot be added to the Thesaurus.

## **Hyphenation**

## **Automatic Hyphenation**

Nisus can automatically hyphenate text which has been placed in the Auto-Hyphenate mode. Text can be placed in this mode by using the **Hyphenate** command on the **Tools** menu. When hyphenating, Nisus checks for correct hyphenation points using the Nisus Hyphenation file. Therefore in order for automatic hyphenation to work, one of the following set up procedures must be followed:

 Choose Dictionary Preferences from the Preferences submenu of the File menu. Save the appropriate settings by choosing Save Preferences from the File menu. Make

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sure that the Nisus Hyphenation file is in the System Folder or in the same folder as the Nisus application. Finally, quit and Nisus and re-start Nisus. These start-up preferences will now be in effect.

This start-up procedure will also ensure that the spelling checker will not ask you to locate the dictionary. You need only repeat this installation if you move your dictionaries, or remove or delete the "Nisus Preferences 3.0" file from the System Folder.

Three levels of possible hyphenation points are determined: the grammatically most desirable, less desirable, and least desirable. A word at the end of a line is hyphenated only if an excessive amount of white space would result otherwise. The most desirable hyphenation points are used unless excessive white space would still remain. Any word which is wider than the column (and which cannot fit using hyphenation rules) will be broken and hyphenated without regard to any rules.

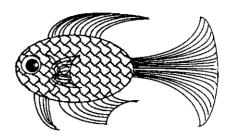
You can set **Hyphenate** as an attribute of all text in your Nisus New File.

#### **Manual Hyphenation**

You can insert soft hyphens into your words. A hyphen character is inserted when you type Command minus (%-). The hyphen character is not displayed unless needed to hyphenate.



# 7 Working with Graphics



## Before the Introduction

The ability to use graphics in Nisus is "only a click away!"

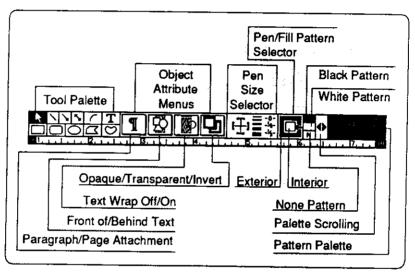


Figure 7-1 The Graphics Palette

Simply click on the Show Graphics Palette icon in the vertical scroll bar and all the tools of Nisus' graphics sheets as illustrated in Figure 7-1 are available you. For a walk-through of some basic graphics features read a fautorial, Session 3: Graphics, page 29.

#### **Technical Introduction**

Like most Macintosh applications Nisus allows you to paste pictures (PICT type data) into a document. The difference between Nisus and other word processing applications is that Nisus will allow you to access the graphic components of the pasted picture; that is, you can edit pasted PICT data within Nisus. In addition you can draw directly in Nisus' graphics sheets. These are features usually found only in separate graphics applications.

While Nisus has three *types* of graphics (Character Graphics, Page Anchored Graphics, and Paragraph Anchored Graphics, —discussed in detail beginning on pages 236, 255, and 253 respectively) the functioning of a Nisus window can be likened to three transparent overlapping sheets: two graphics sheets with the text sheet in between.

To work on the graphics sheets, you must be in graphics mode where the Graphics Palette shows. The text sheet is accessible only when you are in text mode, though the text ruler need not show. The text sheet is the sheet where you normally type your text.

In Macintosh usage, the term *object graphic* means a graphic made up of lines, arcs, characters and patterns which have characteristics that can be altered with ease because they are mathematically defined. This meaning of object graphics does not include bitmaps; bitmap graphics are defined using dots. The only way to place bitmap graphics in Nisus is to import them. Once in Nisus they can be resized but cannot be edited.

When object graphics are imported into Nisus they can be edited, but only on a graphics sheet. (To understand the distinction, for example, MacPaint documents are bitmaps while MacDraw documents are object graphics. Some programs will allow you to create graphics of

both types.) Any kind of graphic can be pasted into either the text sheet or the graphics sheets. The way the graphic interacts with the surrounding text and graphics is determined, among other things, by the sheet it is on. Each graphic pasted into the text sheet behaves as if it were a single character, almost the same as a letter. For this reason, it is referred to as a "character graphic."

Nisus allows you to create object graphics on the graphics sheets. Although this is the only type of graphic that you can create in Nisus, you can copy any kind from other applications and paste onto any of the graphics sheets in Nisus. For more information on importing graphics, see page 286.

While you are on the text sheet, any graphic you paste is placed as a character graphic at the insertion point. If necessary, the height of the line on which you paste the graphic is automatically adjusted, as it would be for any other text character of the same height. Graphics on the text sheet can be resized, cropped and can also be moved outside their position box called the character window.

Graphics on the graphics sheets can be placed in front of or behind the text on the text sheet; they can have the text wrap around them or flow through them; they can be made opaque or transparent or (using a non PostScript printer) the points at which they intersect can be caused to invert; they can be grouped and ungrouped (though only graphics of the same type [means of attachment] can be grouped together).

Graphics on the graphics sheets can be made to flow with the text or remain on a particular page. A character graphic (that is, a graphic on the text sheet) stays with the characters on either side of it and flows both horizontally and vertically with the text.

You can import bit-mapped graphics via the scrapbook and/or clipboard although you cannot create them within Nisus. You can also draw your own object graphics within Nisus on the graphics sheet and then copy and paste them on the text sheet as character graphics. See the section below on object graphics. You can even paste graphics containing PostScript commands. Such graphics contain

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a version for the screen and PostScript commands that are actually sent to the printer. The details regarding pasting these kinds of graphics are discussed on page 287.

A graphic on a graphics sheet is anchored either to a text paragraph, the anchor paragraph, and moves vertically with that paragraph or it is anchored to a particular page, and remains on that page. Any graphic on the graphics sheets will stay horizontally where you position it. However, if the anchor paragraph is removed, the graphic is also removed. This means that if the return character which starts the anchor paragraph is deleted, the graphic is also deleted. If you see this happen, simply undo your action and move the graphic to another paragraph. If, on the other hand, it is a page anchored graphic, it will remain on that page until you remove or delete that graphic. See Page/¶ Menu page 253 on how to attach a graphic to a paragraph or a page.

# The Text Sheet: Character Graphics

Character graphics are any graphics pasted or placed when you are on the text sheet or any other window in Nisus other than the Graphics sheets (i.e. the Glossary or Macros). All character graphics are PICTs. The character graphic is placed at the insertion point and the current line is lowered to allow the graphic to fit completely below the previous

line, as with the G shown here. The character raphic rests on the base line where it is pasted.

When a graphic is pasted on the text sheet, it behaves like a character. You can select, delete, copy and paste it along with other text. If you put the graphic next to a word (with no spaces in between) it becomes part of that word and will wrap with it. If you double-click a word, however, any character graphics inside that word are not selected with it and the word itself is treated as two words for the purpose of double-clicking. You can mark a character graphic for the index or the table of contents, or as a point in your text to which you can jump and/or cross reference. You can even find and replace a character

graphic using the Find/Replace dialog. Two graphics are considered the same if their graphics window (both height and width) is the same. See Finding and Replacing Graphics page 211 for more details.

Character graphics are only affected by the following commands from the Style menu changes: <u>Underline</u>, <u>Oncolone</u>, <u>Shadom</u>, <u>Lower Underline</u>, <u>Dotted Underline</u>, <u>Superscript</u>, <u>Strike</u>

Through, <u>Overbar</u>, <u>Box</u> and <u>Invisible</u>. They are not affected by <u>Font</u> or <u>Size</u> attributes nor are they affected by the <u>Bold</u> or <u>Italic</u> style. Character graphics in <u>Oncolone</u> are boxed and character graphics in <u>Shadom</u> style are outlined with a shadowed box.

# Resizing, Moving and Cropping Character Graphics

You can change the size and position of a character graphic when on the text sheet. To do this, click once on the character graphic to select it. You will see four square handles—one on each corner of the graphic

and four rounded handles on each side of the graphic

change its size, drag one of the square handles. The adjoining text is reformatted around the newly resized character graphic. To change the margin of white space surrounding it, drag one of the rounded handles. To change its position, just drag it to the new location. You may slide the graphic below the base line by dragging it straight down. See Figure 7-2.

Holding the Option key while dragging reverses the meaning of the drag and crop handles. You can change the size by pressing the Option key as you drag one of the rounded handles. Alternatively, you can change the margin of white space by pressing the Option key as you drag one of the square handles.

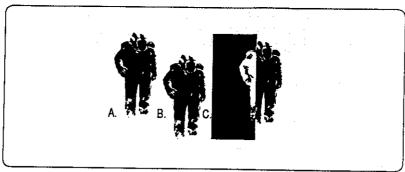


Figure 7-2 A. A character graphic B. Same graphic dipping below the base line C. Selecting a character graphic which is partially outside its character window

You can move a character graphic outside of its character window by pressing Command or Option while dragging it. This is shown in part C of Figure 7-2. A character graphic will only stay on the line where it is placed. It cannot be moved into another line without the text below being affected.

When you paste equation blocks from programs such as Expressionist™ and MathType™ they appear placed correctly on the baseline.

You can alter the appearance of a character graphic in a number of different ways by pressing one of the modifier keys as you resize or crop it as illustrated in Figure 7-3.

You can return a character graphic to its original size and position at any time by selecting it and, while pressing the Shift key, double-clicking on it.

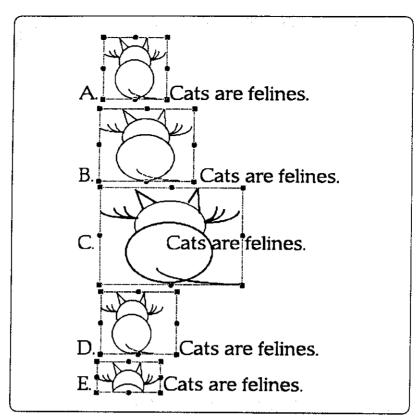


Figure 7-3 A. A character graphic followed by text B. Same graphic resized larger C. Resized with Command so text does not move D. Resized with Option (adds space) E. Resized with Option (crops). Once the character graphic is deselected the rectangular character window will disappear

#### **Editing Character Graphics**

To edit a character graphic double-click on it. The **Graphic for...** window as illustrated in Figure 7-4 will open with same size as, and in the same location as the original graphic; the **Graphics** menu will appear to the right of the menu bar. This window functions the same as any other Nisus window (it can be moved, enlarged, zoomed, the windows menu will pop down from its title bar with the Option or

Command key pressed when you click on it, etc.) but it is always, and only, in the graphics mode (but remember, you are editing a character graphic).

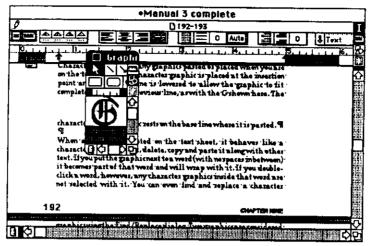


Figure 7-4 The "Graphic for..." window of a character graphic

Any editing done in this window will appear in the character graphic when you close the window by clicking its close box or click on the original character graphic. If you make a change that affects the width or height of the character graphic, it will not be apparent until you close the **Graphic for...** window and press Shift as you double-click on the character graphic. Any changes made will be saved when you save your file. When the **Graphic for...** window is open the actions performed in it are added to the Undo list. However, once it is closed, anything that had been done in that window can no longer be undone.

- When you open a character graphic to edit it, by opening the **Graphic for...** window, Nisus automatically converts it to a Nisus Objects Graphic. Any PICT comments or PostScript comments will be removed. For more technical information on what this implies see PostScript Limitations page 288.
- To delete a character graphic, backspace over it with the Backspace (or Delete) key or select it and press Backspace (or Delete). Cut, Copy, Poste and Clear can be used with character graphics just as with other text.

Copying graphics together with text has some limitations. If you copy more than one graphic with text, each graphic copied is limited to 32K in size. If any graphic in the copy region exceeds 32K, it will be replaced by a box with the message the size of the pasted

This picture is > 32K.

graphic: Copy it separately. when you paste. If you

copy one graphic at a time, the only size limit is your computer's memory. Any number of graphics selected together on the graphics layer count as one graphic.

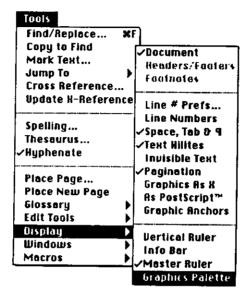


Figure 7-5 Changing from text to graphics sheet

# The Graphics Sheets

To enter the graphics sheets, click the Show Graphics Palette icon at the top of the scroll bar or choose **Graphics Palette** from the **Display** submenu of the **Tools** menu as shown in Figure 7-5. The Graphics Palette as shown in Figure 7-1 on page 233 will replace the Text Ruler.

When on the graphics sheets the Graphics Palette and the **Graphics** menu appear. Tools and commands available to create and modify graphics created in, and imported into, Nisus are discussed below.

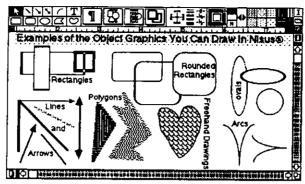


Figure 7-6 Graphics Palette at the top of the document and an example of each type of drawing in the window

### The Graphics Palette

The tools in the Graphics Palette allow you to create and edit object graphics such as those illustrated in Figure 7-6. The pull-down menus in the Graphics Palette change the way object-oriented and PICT graphics interact with each other and the surrounding text.

The pointer becomes a cross-hair + for all tools on the Graphics Palette except the Text tool. The Text tool becomes an I - beam with a baseline marker +.

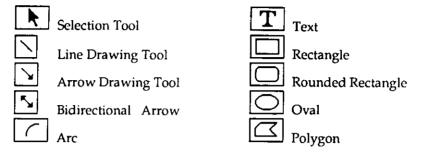
To draw a graphic, drag the cross-hair to draw the tool's shape. The Shift key and the Command key will modify the effect of some tools. See the following sections about each particular tool for an explanation.

Drawing tools are selected by clicking on them. A tool will stay selected until another tool is selected (see below for an exception). Click the Selection Tool if you want to select a graphic, change its appearance, or move it to another location. Refer to the section on object modifiers, below, for details on changing the frame size, frame and fill pattern, and other attributes of graphics.

When using any drawing tool (except the Text tool and the Polygon) if you make a short click without drawing that tool will be deselected and the Selection Tool will be activated.

# **Drawing Tools**

The Nisus graphics tools are:



Selection Tool

To select graphics click on the Selection Tool, then click on the graphic you want to select. A selected object graphic has four square handles, one on each corner. A selected PICT graphic (and a Placed Page Graphic) has eight handles. In addition to the four square handles, it has four rounded handles.

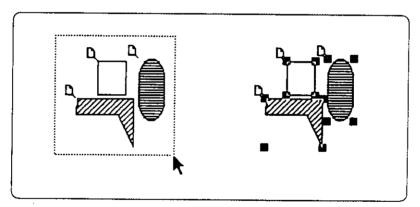


Figure 7-7 Using the selection rectangle

To select more than one graphic, press Shift while clicking on all graphics after the first.

If the graphics are close together, you can also select them by using a selection rectangle. To do this, click on the Selection Tool, then click on one corner of an imaginary rectangle that will enclose all the graphics you wish to select and drag to the opposite corner, as illustrated in Figure 7-7. Take care to enclose all graphics completely because even partial exclusion will prevent selection of that graphic as illustrated in Figure 7-8. The entire selection will appear within a dotted rectangle. When you release the mouse button, selection will be indicated as usual (the "handles" will appear). To deselect, click outside the selection.

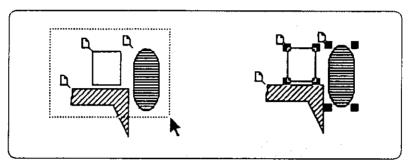


Figure 7-8 incomplete selection of multiple graphics

You can only simultaneously select graphics that share the same attachment attribute:

- Move with Paragraph
- Fix to Page

as illustrated in Figure 7-9. For more details on the attachment attribute, see Page/¶ Menu, page 253.

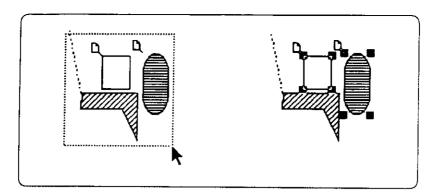


Figure 7-9 Selecting graphics with different attachment attributes

To select a number of graphics sharing the same attachment attribute, but are only partly enclosed by the selection rectangle, press Option while dragging the rectangle, as illustrated in Figure 7-10.

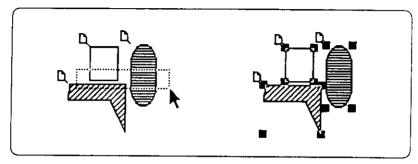


Figure 7-10 Using the Option key with the selection rectangle

- To select all graphics on a graphics sheet that share the same attachment attribute choose **Select All** from the **Edit** menu.
- To deselect one from a number of graphics that are selected, press the Shift key as you click on the graphic you want to deselect.

In the text sheet when you select different attributes for text, the succeeding text assumes those attributes (of font, size and style). The attributes shown on the graphics palette act in much the same way as the current palette. When nothing is selected, whatever the palette shows will be the attributes of any newly created graphic. You change the attributes whenever you click on the palette, no matter whether

something is selected or not. Any attributes changed while a graphic is still selected will affect that graphic also.

When you select one graphic the palette will display the attributes of that graphic. However, that will not affect the current palette. (This can be compared to moving your insertion point to another section of your text where the font size and style are of a particular set of attributes. They show up on your menus, and affect any text contiguous with it, but have no affect on the text you enter when you return to where you had been working.)

To change the current palette so that it will create a graphic with the attributes of a selected graphic you need to choose each of those attributes from the palette before drawing the new graphic. This resets the current palette.

If two or more graphics are selected the palette will display all common attributes of the selected graphics. In the pop-down iconographic menus in the middle of the graphics palette (discussed beginning on page 253), check marks appear by items that are the same for all selected graphics. If the selected graphics do not share the same attribute for a menu, no check mark will be placed beside any command and the icon in the menu will show what was the current attribute. The same applies for pen and fill patterns.

• No graphics selected:

Display the current attributes.

One graphic selected:

Display the attributes of that

graphic.

Several graphics selected:

Display all shared attributes (menu items with shared: attributes checked; attributes not shared:

current attributes displayed).

Once graphics are drawn, you need to select them in order to modify them. Move graphics by selecting them with the Selection Tool and dragging them to the new location.

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To resize a graphic, first select it. Four handles appear one on each corner of the enclosing rectangle. Drag any one of the handles to resize the graphic. If you hold the Shift key as you resize, the graphic will be constrained to its original proportions.

You cannot resize a graphic that is made up of many ungrouped objects such as those illustrated in Figure 7-7 and Figure 7-10 on pages 243 and 245 respectively. This is actually not yet one graphic. Group them first (choose **Group** from the **Graphics** menu, see page 272) then you will be able to resize them as a unit.

# Line Drawing Tool

Use this tool to draw straight lines. Press Shift as you draw to constrain movement to 45° increments as illustrated in Figure 7-11.

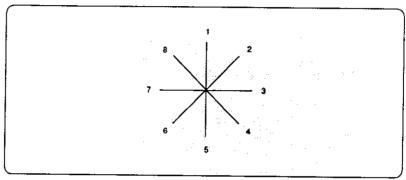


Figure 7-11 Restricted line drawing positions using the Shift key

# Arrow

This tool draws a line with an arrow head pointing away from the initially clicked position. Drag the arrow to the spot to which it should point as illustrated in Figure 7-12. You can draw an arrow pointing in any direction. Press Shift as you draw to constrain movement to 45° increments.

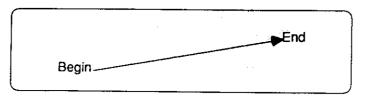


Figure 7-12 Drag the arrow to the spot to which it should point

Bidirectional Arrow

This tool draws a double-ended arrow. Both ends of the line have an arrow head. Press Shift as you draw to constrain movement to 45° increments.

Arc

Use this tool to draw an arc. Click to begin drawing and hold down the mouse button. You will get differently shaped arcs depending upon which direction you begin dragging.

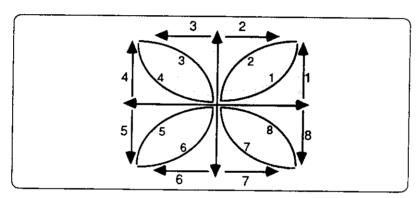


Figure 7-13 Shaping arcs

You can curve arcs eight different ways. Each of the eight ways is illustrated in Figure 7-13. The first direction you travel when you begin drawing determines that the arc will be one of two shapes. The

next direction you travel will determine exactly what shape the arc will have and this is the direction that is labeled with the number of the arc in Figure 7-13.

Press Shift to constrain the arc to a quarter circle.

### TText

This tool enables you to create text on the graphics sheets. When it is active, the pointer will appear as an I-beam  $\frac{1}{2}$  with a baseline marker. You can enter text in two ways.

- You can click the I-beam anywhere in your document. Text will be entered starting at the I-beam and resting on the baseline marker. The text box will continue to grow as you type, starting new lines only when you enter a return character.
- You can also drag the I-beam to create a graphic text box and activate the insertion point
   . Text will be

entered to the right of the I-beam. However, the text box will not grow. Lines will wrap when they reach the right edge of the text box. When the text reaches the bottom of the text box it will continue to be entered, though it will not be visible. You can make the text visible by selecting the text box with the Selection Tool and then dragging one of the handles on the corners, resizing the box.

Change the font, size and style of the text box using the menus in the menu bar. Set the justification from the **Graphics** menu which appears on the menu bar, see page 285. All the text typed in a text box has the same attributes. You may apply the following commands from the **Style** menu to the text: **Bold**, *Italic*, <u>Underline</u>, **Outline**,

Shadom, Condense, and Extend. All other styles are not available for text in a graphic text box. Having created the text box, you can place it anywhere on the page.

Text on the graphics sheet gives you greater freedom in arranging the text on the page than you have on the text sheet. You can use text on the graphics sheet to create side bars, call-out boxes, and even independent columns of text.

You can achieve unusual text effects with the graphics Text tool. For example you can, as usual, create a text box and enter some text. Then select the text box and choose **Cut** from the **Edit** menu. If you then press the Option key as you choose **Paste** from the **Edit** menu the text box will be pasted as a PICT, as illustrated in Figure 7-14. You will be able to modify the appearance of the font by stretching or compressing it using the graphic box's square handles. While the graphic will appear strange on screen (showing the "jaggies") it will print smoothly, as illustrated in Figure 7-15.

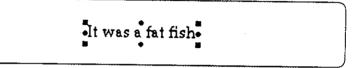


Figure 7-14 Option pasting a graphic text box

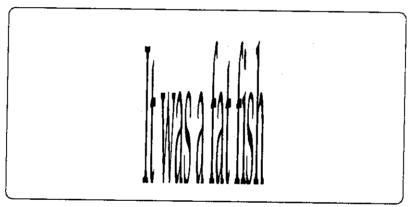


Figure 7-15 an Option Pasted text box resized

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Rectangle	
-----------	--

This tool is used to draw rectangles and squares. Press Shift to constrain the object to a square.

Rounded Rectangle

This tool is used to draw rounded rectangles and squares. Press Shift to constrain the object to a rounded square.

Oval

This tool is used to draw ovals. Press Shift to constrain the object to a circle.

Polygon

This tool draws connected lines to form a polygon. Click to start drawing. Then move the pointer to form a side (do not hold the mouse button as you move). Clicking once more will finish a side and begin drawing the next side. Double-click to finish drawing and leave the polygon open. To close the polygon, click near the starting point, the end point will be placed at the start point.

You can prevent closure when the mouse comes close to the beginning by pressing the Option key as you click.

Freehand Drawing

Use this tool to draw any free flowing graphics as illustrated in Figure 7-16 and Figure 7-17. This tool draws connected dots to shape a free formed object. Click to start drawing. Then, with the mouse

button depressed, move the pointer to form your object. Release the mouse button when you finish drawing.

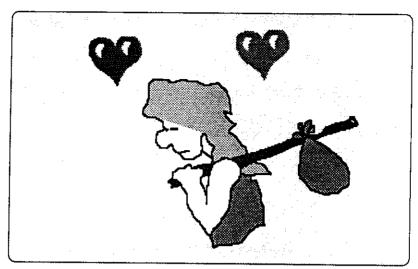


Figure 7-16 Using the Freehand Drawing Tool

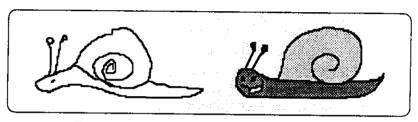


Figure 7-17 Using the Freehand Drawing Tool

The Text tool and the Freehand Drawing tool are the only tools that will not automatically scroll the window as the object grows.

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### **Graphic Object Attributes**

The remainder of the items on the Graphics Palette affect the attributes of your graphics.

When you first enter the graphics sheets you will notice that certain settings are already established. These are called the "current settings." You can change how your new file opens (even to the point of having it open on the graphics sheets) by setting your desired attributes and saving the file as a Nisus New File. This is explained in detail on page 65.

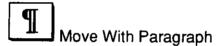
Immediately to the right of the Tools Palette is a series of four iconographic pull-down menus. These menus affect the manner in which graphics interact with the document as a whole, the text on the text sheet, and other graphics.

As is standard with Macintosh attribute menu commands (Font, Size, Style, etc.), the attributes of your selection are indicated with a check mark. If more than one graphic is selected and more than one attribute from one of the iconographic attribute menus has been applied no check mark will show in that menu.

# 🔲 🔳 Page/¶ Menu

There are two types of graphics on the graphics sheets:

- graphics that move with the paragraph to which they are anchored
- · graphics that are fixed to a specific page.



To have graphics on the graphics sheets flow with the text as it moves, select the graphic/s and choose Move with ¶ from the

 $\P$  | Page/ $\P$  menu. This will cause them to attach to the nearest paragraph (the anchor paragraph) above all the overlapping paragraph graphics in the text. They are actually anchored to the return character at the beginning of that paragraph. This graphics anchor, which appears as a dotted line from the upper left corner of the graphic up to the beginning of the paragraph, can be seen by choosing Graphic Anchors from the Display submenu of the Tools menu as shown in Figure 7-18. Paragraph graphics move with the paragraph to which they are anchored. However, their distance from that paragraph is not fixed. In fact it can be quite a distance, yet still remain anchored to the same return character. This is because Nisus tries to prevent a paragraph anchored graphic from crossing a page boundary. When you delete the return character preceding this paragraph, the graphic is also deleted. When you move this return character (by cutting and pasting or by entering other text above it) the graphic will move with it.

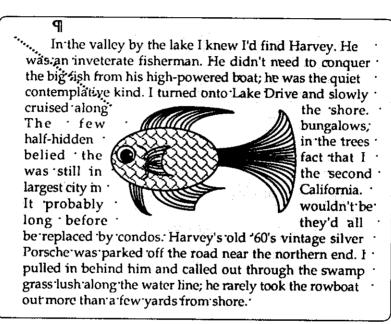


Figure 7-18 The Move With Paragraph Graphics Anchor (with space and return character indicators showing to indicate attachment)

If you have a paragraph anchored graphic nested within text and you have chosen Text Wrap Off, Nisus will keep the graphic and

the text over which it lies together on the same page. This may cause the graphic and those lines of text to "bounce" together from page to page depending on whether or not enough space exists on that particular page to display the entire graphic (it is as though those lines of text have been given the text editing attribute from the Format menu Keep On Same Page). In reality, the graphic is still with the return character to which it was anchored.

If you want to see the anchors on screen but you do not want them to print, be sure to uncheck the option Print with all "Display" options as shown on screen. in the Printing Options dialog box (choose Printing... from the Preferences submenu of the File menu).

If you want to copy and paste text with its anchored graphics, be sure to include the proper return character in the selection when choosing **Cut** or **Copy**.

- When placing graphics in your document it is advisable to paste them on the text layer whenever possible. You can create a graphic on the graphics sheets and after creation cut it and paste it on the text layer. It then becomes a character graphic as described on page 236. You will only need to have graphics on the graphics sheets when they need to overlap text or have text wrap around them. Graphics pasted into the text layer will update more rapidly as you edit the text of the document.
- A graphic at the top of the document is anchored to the top of the document, as there is no return character to anchor it. Thus, if you add new paragraphs at the beginning of the document, the graphic will not move. You must go to the graphics sheet and move it so that it attaches itself to another paragraph.

٦		
	Fix to	Page

To have your graphics remain on a specific page regardless of the flow of text that may be inserted above them, select them and choose

Fix to Page from the Page/9 menu. This will cause

them to remain on that particular page. Graphics that are fixed to page also have a graphics anchor different from that of the graphic that moves with a paragraph. It appears as a small page icon just above and to the left of the graphic and can be seen by choosing **Graphic Anchors** from the **Display** submenu of the **Tools** menu as shown in Figure 7-19 below. If you remove enough text so that the number of pages in your document is less than the page number to which a **Fix to Page** graphic is attached, that fixed to page graphic will become invisible. It is still associated with that page. For example, if a graphic is fixed to page 3 and you remove text so that your document has only two pages, the graphic will disappear. When you add text again so that there are three pages, the graphic attached to page 3 will reappear.

In the valley by the lake I knew I'd find Harvey. He was an inveterate fisherman. He didn't need to conquer the big fish from his high-powered boat; he was the quiet contemplative kind. I turned onto Lake Drive and slowly cruised along the shore. The few bungalows, half-hidden in the trees belied the fact that I was still in the second largest city in California. It probably wouldn't be long before they'd all be replaced by condos. Harvey's old '60's vintage silver Porsche was parked off the road near the northern end. I pulled in behind him and called out through the swamp grass lush along the water line; he rarely took the rowboat out more than a few yards from shore.

Figure 7-19 The D Fix to Page Graphics Anchor

Graphics that are fixed to a page cannot be selected at the same time as graphics that will flow with a paragraph. If you select one or more graphics that are anchored in one way and then choose the other option from the menu, you are not simply switching between two views of your document, you are altering the attachment attribute of all those graphics selected.

# 🔯 👺 The Front/Behind Text Menu

As explained in the introduction to this chapter, page 234, there are two graphics sheets in Nisus: one in front of the text sheet and one behind it. When you look at your Macintosh screen all you see is "a thousand points of light." It is hard to imagine that some things are in front of or behind anything else. Nonetheless, as you have seen when you have a variety of Nisus document windows open at the same time, just as on top of your desk, various sheets of paper are on top of and underneath each other. This is also true on the Macintosh desktop (though since the desktop screen is vertical we speak of in front of and behind). Imagine for a moment that you are reading a biology text, the kind that uses transparent overlays which show various organs of the body allowing you to view successive layers. A Nisus document has three such layers.

If you are using a PostScript printer, certain screen display phenomena cannot be printed as displayed. You can adjust for this in Nisus in two ways.

If you are printing with a PostScript printer choose As PostScript® from the Display submenu of the Tools menu. Though the effects of this command only affect Nisus Graphics Objects that are on the graphics sheets, it will enable you to see precisely what will print.

To have text visible in front of a graphic (for example to create a "screen" effect) as illustrated in Figure 7-20 select the graphic and choose Behind Text.

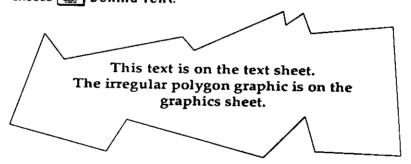


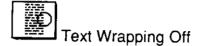
Figure 7-20 Text in Front of Graphic for Printing on a PostScript

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- Another way to create this effect (on the graphics sheets) using the graphics text tool is explained on page 270.
- Transparency has no effect on a PostScript printer. Graphics placed in front of text will always print as opaque on a PostScript printer, even if on screen you have chosen Transparent from the Opaque/Transparent menu.

# The Text Wrap Menu

You can have the text of your Nisus document either wrap around a graphic on the graphics sheets or appear to pass right through it.



In the valley by the lake I knew I'd find Harvey. He was an inveterate fisherman. He didn't need to conquer the big fish from his was the quiet contemplative } Lonto Lal ve and slowly cruised along half-hidden in the trees belied cond largest city in California before they'd all be replaced by arvey's old '600 vintage silver Porsche was parked off the road near the northern end. I pulled in behind him and called out through the swamp grass lush along the water line; he rarely took the rowboat out more than a few yards from shore.

Figure 7-21 Text Wrap Off (graphic in front of the text also expressed as text under the graphic)

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With text wrapping turned off, depending on which of the graphics sheets your graphics are on, text will, as explained above, pass either under, as illustrated in Figure 7-21 or over the graphic, as illustrated in Figure 7-22, rather than wrapping around it as shown in Figure 7-18 and Figure 7-19.

The text entered on the text sheet is itself transparent and lies between the two graphics sheets. It may or may not be visible in relation to the graphics. This depends on whether the graphics are in front of , or behind the text, transparent (that is, if you have a non-PostScript printer, see below, page 288), or whether you have chosen Text Wrap On. Character graphics on the text sheet will not cause text wrap; they act just as any other character typed from the keyboard. This means that they will wrap around the graphics on the graphics sheets. A document can, as does this one, have a mixture of graphics with Text Wrap On and Text Wrap Off.

In the valley by the lake I knew I'd find Harvey. He was an inveterate fisherman. He didn't need to conquer the big fish from his providered boat; he was the quiet contemplative knew the note onto Lal eve and slowly cruised along the providered boat; he was the quiet contemplative knew the northern in the trees belief the the trees belief the the trees before they'd all be replaced by bond arvey's old '61' vintage silver. Porsche was parked off the road near the northern end. I pulled in behind him and called out through the swamp grass lush along the water line; he rarely took the rowboat out more than a few yards from shore.

Figure 7-22 Text Wrap Off (graphic behind the text, also expressed as text over the graphic)



Regardless of which graphics sheet your graphics are on, text will wrap around the smallest rectangle that encloses the graphic. Text that is interrupted by the graphic will continue on the other side of the graphic (justified according to the attribute set for that paragraph on the Master Ruler). This is illustrated in Figure 7-18 and Figure 7-19 on pages 254 and 256.

You can set the margin of white space to the right and left of the graphic by choosing **Set Wrap Border...** from the **Graphics** menu. See Set Wrap Border... page 274. These parameters can be saved as part of your Nisus New File.

When you select a graphic that spans more than one column and choose Text Wrap On from the Text Wrap menu, the text will wrap in the other column or columns it touches.

- The gutter lines between columns break for a graphic that spans columns.
- You can have your text wrap around irregular shaped graphics. Create the graphic and be sure that Text Brap Off is the active attribute. After you have drawn your graphic choose the Line Drawing Tool and a large "weight" (see page 266). Choose Text Wrap on from the Text Wrap menu and draw a series of lines that span the exact width and height of the area you want the text to wrap. When you have finished drawing all of these lines choose them all using the Shift key and change their fill pattern to none (see page 269) (alternatively, you can have the non-wrapping graphic attached to the page and the lines attached to the paragraph; this will facilitate selecting them; be sure to make them both share the same attachment attribute when you finish, or they will not remain together.). The text will then appear to wrap around the graphic when it actually wraps around the lines, which will be invisible, as illustrated in Figure 7-23.

In the valley by the lake I knew I'd find Harvey. He was an inveterate fisherman. He didn't need to conquer the big fish from his high-powered boat; he was the quiet contemplative kind I turned onto Lake Drive and slowly cruised along the shore The few bungalows, halfhidden in the trees belied the fact that I was in the second largest city in California. It wouldn't be probably long before they'd all be replaced by condos. Harvey's old '60's vintage silver Porsche was parked off the road near the northern end. I pulled in behind him and called out through the swamp grass lush along the water line; he rarely took the rowboat out more than a few yards from shore.

Figure 7-23 Text wrapping around an irregular shape

Text Wrap only affects the text on the text sheet, not the text graphics created using the Text tool. However these text boxes can also have text wrap around them as illustrated in Figure 7-24.

In the valley by the lake I knew I'd find Harvey. He was an inveterate fisherman. He didn't need to conquer the big fish from his high-powered boat; he was the quiet contemplative kind. turned onto Lake Drive and slowly cruised along It Was a fish the shore. The f e w bungalows, half-hidden in the trees belied the fact that I was still in the second largest city in California. It probably wouldn't be long before they'd all be replaced by condos. Harvey's old '60's vintage silver Porsche was parked off the road near the northern end. I pulled in behind him and called out through the swamp grass lush along the water line; he rarely took the rowboat out more than a few yards from shore.

Figure 7-24 Text wrapping around text boxes

## **Overlay Attributes**

Graphic objects can have different attributes in relation to each other. They can be either opaque (like a normal piece of paper, you cannot see what is behind them), transparent (like a gel or glass, you can see right through them to what is behind), or invert (which causes the point at which graphics of the same "color" intersect to invert to the opposite color). While all of these attributes can be seen on screen they will all print only on a QuickDraw printer such as the ImageWriter. Current PostScript printers (such as some Apple LaserWriters) do not support all of these drawing modes at this time.

If you are using a PostScript printer choose As PostScript® from the Display submenu of the Tools menu to see how your graphics on the graphics sheets will print.

# 中型型 The Opaque/Transparent Menu

To change the overlay attributes of a graphic or graphics select them and choose the desired command from the **Opaque/Transparent** menu.

The text entered on the text sheet of Nisus can be understood to lie between the two graphics sheets. It may be hidden by graphics on top of it. The graphics in the graphics sheets may hide one another, as well. The white portions of graphics may allow text and graphics below them to show through.



The fill pattern will cover both text and graphics behind it as shown in Figure 7-25.

If you have a PostScript printer save your Nisus New File with **Opaque** from the **Opaque/Transparent** and choose **As PostScript®** from the **Display** submenu of the **Tools** menu.

• The four graphics in the figure all share the attribute of opaque. The triangle , while opaque, has a fill pattern of none. This allows whatever is behind it to be seen through it. The triangle is behind the circle and in front of the text and long rectangle.

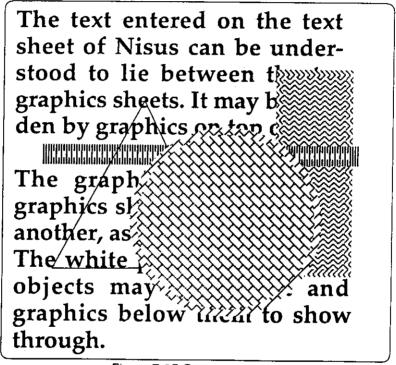


Figure 7-25 Opaque graphics



This causes the white part of any fill pattern to be "see through." Anything behind this graphic can be seen through the white parts of the fill pattern.

The graphics in Figure 7-26 are the same as in Figure 7-25. What you see is a screen shot of the window in which the graphic was produced. Because this document was printed on a PostScript printer the transparent attribute would not print.

- Once again, from front to back, the images are: circle, triangle horizontal rectangle (opaque), and vertical rectangle.
- Transparent is only compatible with QuickDraw printers, not current PostScript printers.

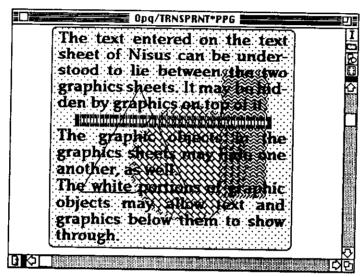


Figure 7-26 Transparent graphics



The icon above illustrates the Invert mode. When a graphic or line is displayed in this mode, what appears on screen is modified by what is under it, or what intersects, it. When two black lines or shapes are drawn over each other the parts that overlap show up as white when Invert is selected. Otherwise the original color of the graphic is shown, as in Figure 7-27.



Figure 7-27 Invert display mode. A. Black filled square B. An "x" drawn in Invert mode C. The square on top of the "x".

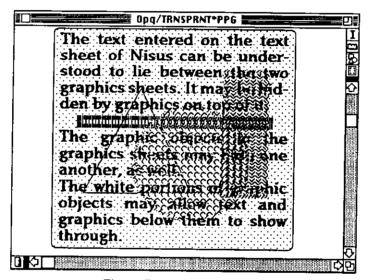


Figure 7-28 Invert Graphics

The graphics in Figure 7-28 are the same as in Figure 7-25 and Figure 7-26. What you see is a screen shot of the window in which the graphic was produced.

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 This time, though the sequence of graphics remains the same as in the previous two figures, their attributes are: circle (invert), triangle (opaque, none fill) horizontal rectangle (transparent), and vertical rectangle (invert).

PostScript printers do not support the Invert drawing mode for graphics at this time. This is a limitation of PostScript. It means that the printouts on such a printer will not show the effects of this attribute. QuickDraw printers will show these effects.

#### Pen and Fill Tools

The preceding commands all affect how a graphic or graphics interact with each other and/or the text. The following tools affect appearance of the selected graphic objects themselves, specifically the outline (Pen) of a graphic or its inside (Fill).

If you want to change a characteristic of a particular graphic, select the graphic by clicking on it with the Selection Tool. Then use the Graphics Palette to make the desired change. You can change the width and/or the pattern of the perimeter, the Pen, of the graphic or change the pattern of a graphic's fill.

The lines in Nisus can be thought of as drawn by a pen. The thickness of the vertical and horizontal directions of the pen are adjustable.



Use the Pen Size Selector tool to set the horizontal and vertical thickness, or weight of the pen that is used to draw the object graphics. To select both horizontal and vertical weights of the pen together, click as in Figure 7-29 A Then click on one of the horizontal lines or fractions on the right side of the icon which represents the thickness you want (the thickness ranges from 5 points to one quarter point (or none), as illustrated in Figure 7-30. When you get to a thickness of

less than one point you will not see the difference on the screen, but they will be printed accurately if your printer has a resolution higher than one point (or 72 DPI — Dots Per Inch). Any changes to pen thickness, or weight will affect both horizontal and vertical directions. The horizontal pen thickness, or weight is selected by clicking as shown in Figure 7-29 B. Once selected, click on one of the horizontal lines which represents the thickness you want. To change the vertical pen thickness, or weight, click as in Figure 7-29 C, and then click on one of the lines at the side to change it.

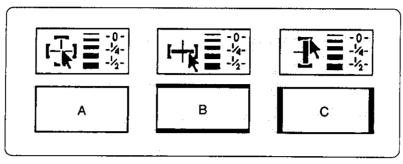


Figure 7-29 Changing the pen size of A. both dimensions, B. horizontal pen length, C. vertical pen thickness, or weight

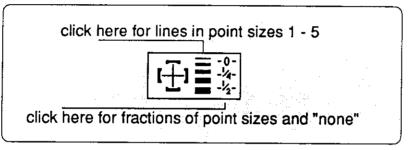


Figure 7-30 Whole and fractional line options

You can draw lines of varying weights using this tool. You can even draw lines, at angles, each having a different weight depending on its angle as illustrated in Figure 7-31.

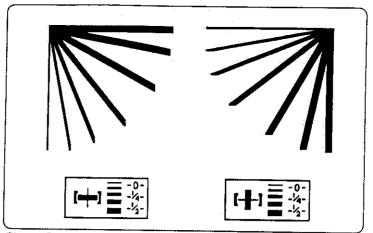


Figure 7-31 Different line weights created by different angles

Ovals, polygons and freehand drawings can also have "sides" of different weights as illustrated in Figure 7-32.

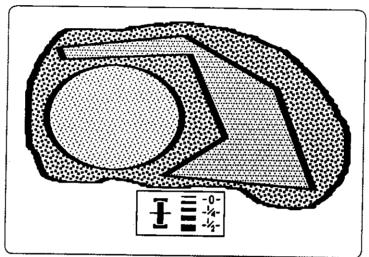


Figure 7-32 an Oval, Polygon and Freehand drawing with different line weights on their sides

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You can change the pattern of your pen as well as your fill. Use the Pen/Fill Selector to switch between them.



When the selector is in this mode, any pattern you choose will fill all selected objects. Any new graphics you draw are filled with the same pattern until it is changed to a different pattern.

You can place screens behind text graphics by selecting a fill pattern along with the Text tool. If you want the text to be transparent so that whatever is behind the text shows through, choose none Another way of creating a screen (using the text and graphics sheets) is explained on page 257.



#### Pen Pattern Selector

When the arrows on the pattern selector look like this, any pattern you select will affect the frame of any selected objects. The frame or outline of a line is the line itself, so this is how you change the pen pattern of lines. Any new graphics will use this pattern for their outlines.

- The Text tool is not affected by this setting. It is either white or black. If you have one of the patterns selected the text will still be black.
- The Pen Pattern Selector tool is useful for creating white text on a black background as explained in the instructions in Figure 7-33. This will print on any Macintosh compatible printer.

To create white text on a black background, enter text in the normal manner into a graphics text box.

Using the selection tool select the text box.

In the Pen/Fill selector choose black for the fill and white for the pen.

Figure 7-33 White text on a black background

#### **Filling Objects**

You can fill any object with a pattern. This is done with the Fill Pattern Selector. You can also fill the border (the Pen) of any object, that is: lines, arcs and arrows (except text) with a pattern using the Pen/Fill Selector and the Pattern Palette.



The pattern scrolling tool changes the patterns that are displayed in the Pattern Palette. Click and hold the mouse button down on the left arrow to scroll one way and on the right arrow to scroll the other way.

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The Pattern Palette is filled with patterns. To set the current pattern, click on the desired pattern. The patterns cannot be edited.

Some PostScript print drivers, (these are Chooser documents; check your Apple menu), check the fill pattern that a graphic is drawn in. If that fill pattern matches some predetermined pattern, the driver will substitute the screen pattern with a PostScript pattern. This is very much like font substitution, where the print driver will substitute the printer font Times for the screen font New York. In practical terms, the gray scale in the Nisus Pattern Palette, illustrated in Figure 7-34 may not print as displayed. You will get a half-tone of higher resolution for some of the Pattern Palette grays. This is totally in the control of the PostScript print driver and beyond the control of Nisus.

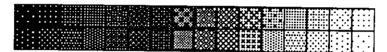


Figure 7-34 A screen shot of the gray scales in the Pattern Palette

## The Graphics Menu

The **Graphics** menu, illustrated in Figure 7-35, appears in the menu bar when you enter the graphics sheets and when you double-click on a character graphic. It contains commands which supplement the tools available in the graphics palette.

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Figure 7-35 The Graphics Menu

#### Bring to Front and Send to Back

Any graphics on the Graphics sheet can overlap. When new graphics are created they are placed in front of the older ones. To move a graphic to the front of other graphics, select it and choose **Bring To Front** from the **Graphics** menu. To move a graphic behind other graphics, select it and choose **Send to Back**.

Nisus remembers the sequence in which graphic objects were created. If you have created a variety of graphics that you later want to bring together you may notice that one or another of them does not appear where you expected it. That graphic was probably created earlier in the sequence and is behind some others.

#### Group and Ungroup

You can group graphics into a single graphic for ease of moving and resizing. When the graphics are grouped they can be resized with any one of four handles at each of the corners of a surrounding rectangle.

Select the graphics to be grouped while using the Shift key or by using a selection rectangle, then choose **Group** from the **Graphics** menu. To ungroup a grouped graphic select the graphic and choose **Ungroup**. Deselect the graphics by clicking outside all of them. The

graphics that were members of the group will now be separate and each of them can be selected independently as they were before you grouped them in part A of Figure 7-36. You must click outside the area of the ungrouped graphics to unselect them all before you can then select one of them.

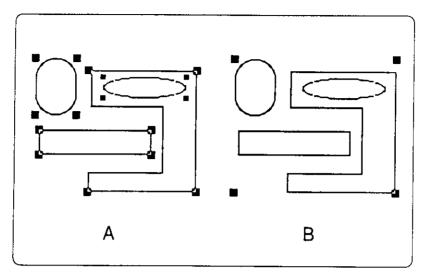


Figure 7-36 Grouping Graphics. A. Graphics selected for grouping B. The same graphics after choosing Group from Graphics menu

When you group graphics, they retain their individual attributes, such as fill pattern, frame weight, and transparency. Once they are grouped, however, changing any of these attributes will change them for every graphic in the group. You can use **Undo** to undo such a change, but in order to change an individual graphic you must first ungroup the grouped graphic and then select only that graphic.

- PICT graphics in a group will not change.
- The command **Group** does not appear with a check beside it when you have selected grouped graphics.

#### Set Wrap Border...

You can change the border of white space to the right and left of a graphic that has the Text Wrap attribute. To do this, select the graphic and choose **Set Wrap Border...** from the **Graphics** menu. The dialog illustrated in Figure 7-37 will appear. Enter the number of pixels you wish to have to the right and left edges of your graphic then click **Set**.

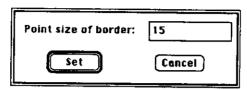


Figure 7-37 the Set Wrap Border dialog

#### Scale...

You can scale (enlarge or reduce by a specified percentage) any graphic on the Graphics layer.

Select the graphic and choose **Scale...** from the **Graphics** menu. In the dialog that appears click on the button that indicates which of the five points indicated (labeled 1 through 5 when the Command key is pressed) should remain stationary. Enter the percent that you want it to scale (either enlarge or reduce). For example, if you enter **50%** in the **Horizontal** box, the length of the graphic will be reduced by half; the same value will automatically be entered in the **Vertical** box. If you want these to be different values you can use the Tab key to move between the two text boxes. Then click **Scale** as illustrated in Figure 7-38.

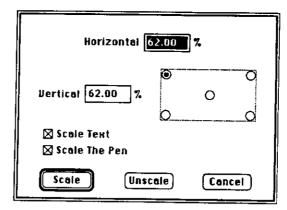


Figure 7-38 The Scale dialog

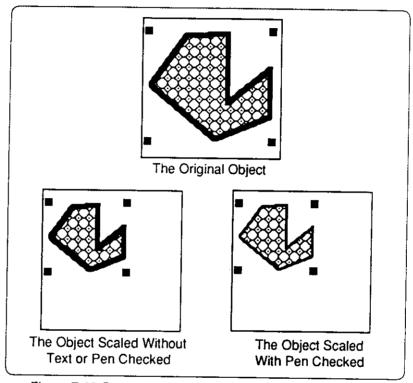


Figure 7-39 Scaled graphic with and without the Pen scaled

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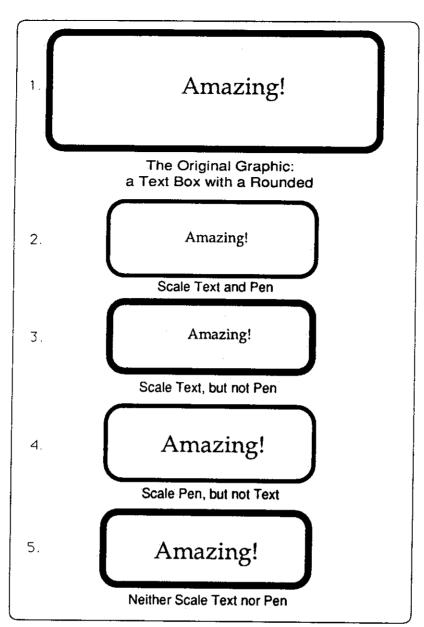


Figure 7-40 The various options of scaling text boxes

Only the area of a graphic will scale unless Scale Text or Scale

the Pen is checked. If they have been checked, those aspects of the graphic will also scale. Figure 7-39 illustrates scaling with and without Scale the Pen checked. If graphics have been created in a program other than Nisus and, through importing, have become bitmapped graphics their "fill" will also scale.

When you scale a graphic text, you can scale the text and/or the box, as well as any frame you may have drawn around the text and is grouped with it. This is illustrated in Figure 7-40.

The values set in the dialog window are maintained throughout the duration of the current working session unless they are changed. The last value set is saved with the file. To scale another graphic using the same values, press the Shift key while you choose **Scale...**. The menu command becomes **Quick Scale** and the dialog is bypassed.

This is useful for setting regularly used scaling proportions with a Nisus New File or other stationery file.

In addition to the ability to undo a scale, many graphics that have been scaled in Nisus can be unscaled. Select the graphic or graphics and choose **Scale...**, then click **Unscale**. Those graphics that can be unscaled include PICT's, bitmapped graphics imported into Nisus, Polygons, Freehand Drawings, and Page Placed Graphics. If one of these items is not unscaling, try to ungroup it and then unscale it.

- A simple Nisus object (one that has only the four square handles on its corners) will not unscale. To be sure you will be able to unscale it, select it and cut it. Then press the Shift or Option key as you paste it. (The menu reads **Swap Paste** when the Shift key is pressed). It is now a complex graphic (one that has eight handles, four square handles on its corners and four rounded handles on its sides) and can be unscaled.
- When you press the Option key as you choose **Scale...** the command is changed to **Unscale** and the Scale dialog is bypassed.
- If no graphic is selected when you choose **Scale...**, the Macintosh will beep a reminder to select a graphic.

Duplication...

**WORKING WITH GRAPHICS** 

You can duplicate any graphic on the Graphics sheets.

Select the graphic and choose **Duplication...** from **Graphics** menu. In the dialog that appears (Figure 7-41) enter the number of copies desired then enter the distance they should be displaced from the original: how far vertically and horizontally from the upper left corner of the original the copies should appear. (You can choose either inches, centimeters or pixels regardless of what your ruler is measuring.) Click **OK** and the graphic will be duplicated as illustrated in Figure 7-42.

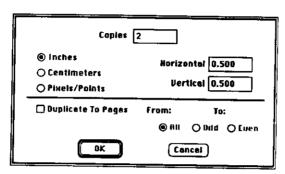


Figure 7-41 The Duplication dialog

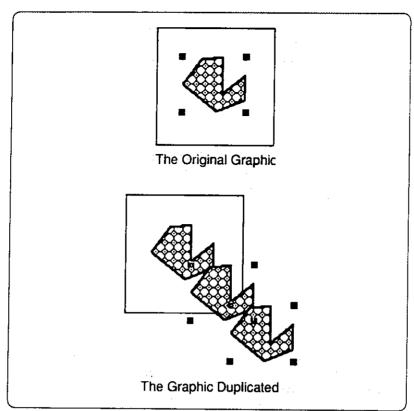


Figure 7-42 A graphic selected then duplicated

#### **Creating Tables**

The duplication tool is an excellent way to create a table in Nisus. These tables are easily edited if your data changes.

First, enter your text as you normally would using tabs and returns as illustrated in Figure 7-43.

WORKING WITH GRAPHICS

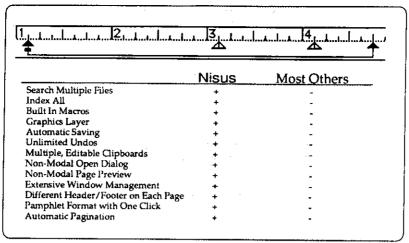


Figure 7-43 Preparing Text for a Table

Then draw the line that will separate the rows of your table. Choose **Duplication...** from the **Graphics** menu. Set the **Horizontal** offset at **0**, the **Vertical** offset at one pixel greater than the point size of your text, as illustrated in Figure 7-44. You may need two if the point size or line spacing is larger; this adjusts for ascending and descending characters (the larger the size, the greater the number of pixels required). Set the **Copies** number to whatever is required, then click **OK**.

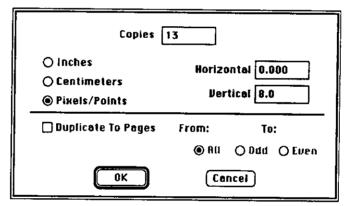


Figure 7-44 Setting duplication dimensions for tables

You can do the same with the vertical lines (if you have enough columns to warrant it). Repeat the above procedure with the appropriate quantities, setting the vertical offset to **0** and the horizontal offset to whatever is necessary. The lines will lay themselves out perfectly, as illustrated in Figure 7-45.

	Nisus	Most Others
earch Multiple Files	+	
ndex All	+	-
Built In Macros	+	
Graphics Layer	+	
Automatic Saving	+'	
Inlimited Undos	+	
Multiple, Editable Clipboards	+	······································
Von-Modal Open Dialog	+	•
Non-Modal Page Preview	+	-
xtensive Window Management	+	<del></del>
Different Header/Footer on Each Page	+	-
amphlet Format with One Click	+	-
utomatic Pagination	+	

Figure 7-45 A completed table

The values set in the dialog window are maintained throughout the duration of the current working session. To duplicate another graphic using the same values, press the Shift key while you choose **Duplication...**. The menu command becomes **Quick Duplicate** and the dialog is bypassed.

Quick Duplicate is useful for setting regularly used scaling proportions with a Nisus New File or other stationery file.

In the Duplication dialog, check the **Duplicate to Pages** box to have a page-attached graphic appear in the same relative position on a range of pages at once. You can duplicate graphics so that they appear on every page of your document (the preset value), or you can determine the range as well as whether it should be on odd, even, or all pages. You can use this to put a screen behind text (such as a "watermark," "COPY," or a shaded half-tone), frames around specific pages, or a company logo. If you have selected a Move With ¶ graphic when you choose Duplication... and check the **Duplicate** to **Pages** box, Nisus will beep at you. To return to the duplicate with offset mode of this dialog simply uncheck the **Duplicate** to **Pages**.

**WORKING WITH GRAPHICS** 

If no graphic is selected when you choose **Scale...**, the Macintosh will beep a reminder to select a graphic.

#### Rotation

You can rotate any ungrouped graphic on the Graphics layer through multiples of 90°.

Select the graphic and choose **Rotate Right 90°** from the **Graphics** menu. The graphic will rotate 90° in a clockwise direction around its midpoint, as illustrated in Figure 7-46. If you want to rotate a graphic in the other direction, press the Shift key and choose the same item. The menu will read **Rotate Left 90°**. The graphic will rotate 90° in a counter clockwise direction.

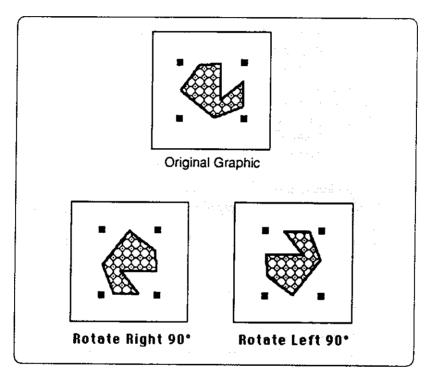


Figure 7-46 Rotating Graphics

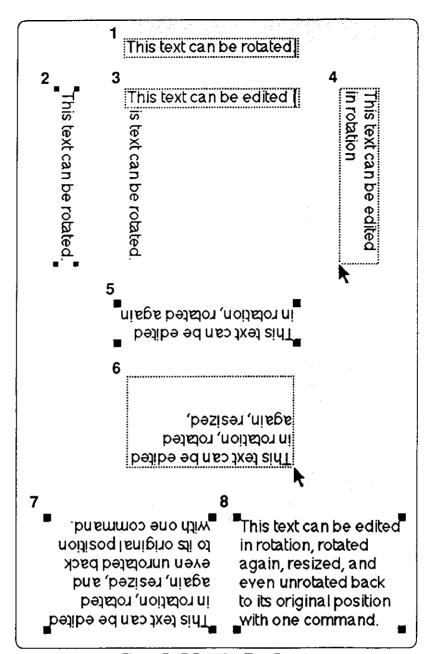


Figure 7-47 Rotating Text Boxes

It is also possible to rotate text created on the graphics sheets, as illustrated in Figure 7-47

#### **Rounded Rectangles**

Choose **Set Round Rects...** from the **Graphics** menu or doubleclick on the Rounded Rectangle tool. You may change the curve of the corners of new rounded rectangles drawn with the Rounded Rectangle tool.

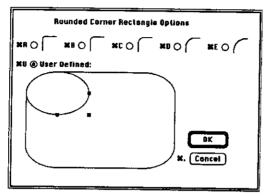


Figure 7-48 A user-defined rounded rectangle

A user-defined rounded rectangle is shown being defined in Figure 7-48. The three handles on the oval allow you to reshape the corners of the rounded rectangle. The middle handle allows you to resize both dimensions of the oval, while the other handles are limited to one dimension. As you change the shape of the oval, the corners of the rounded rectangle change to curve around it.

When you achieve the desired shape, click **OK**. Now whenever you draw rounded rectangles, they will have the corners you have defined.

See PostScript Limitations at the end of this chapter, page 288, for limitations on the printing of user-defined rounded rectangles.

#### **Show Paste Spot**

Nisus will paste any graphic you have on your clipboard at the last point clicked in your document window. If you wish to see this spot choose **Show Paste Spot** from the **Graphics** menu. A small dotted corner ''' will flash at the upper left hand corner of where the graphic will be pasted. If you do not want to see the insertion point flashing all the time, but just when you want to paste, press the Command key to activate this command.

#### **Graphics Text Justification**

The text in graphics text boxes can be justified either flush left, centered or flush right. Choose either Left Justify, Center Justify, or Right Justify from the bottom of the Graphics menu, respectively. This can be set as an attribute of your graphics text boxes and saved with your Nisus New File.

#### **Moving Small Graphics**

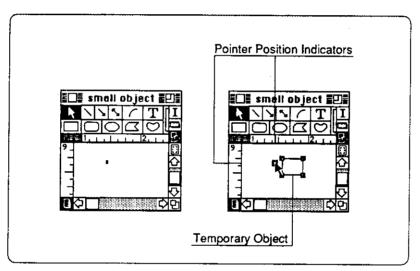


Figure 7-49 Moving a small graphic

Small graphics are often hard to select and move. In order to accomplish this, select the small graphic along with a larger graphic nearby (you may need to create a temporary larger graphic) and move the two together. Place your pointer directly on the smaller graphic and move it noting its exact placement in the vertical and horizontal rulers, as illustrated in Figure 7-49.

- When you are making fine adjustments to your graphics it is sometimes difficult to see precisely where a graphic is being moved because of the presence of the pointer or Selection Tool. You can adjust a graphic by grabbing on any portion of its handle. You can also hide the Selection Tool by pressing the Command key as you make your adjustment (the pointer does not disappear until you actually move the mouse).
- When placing graphics in your document it is advisable to paste them on the text sheet (i.e. in the text mode) whenever possible. You can create a graphic on the graphics sheets and then cut it and paste it on the text sheet. You will only need to have graphics on the graphics sheets when they need to overlap text or have text wrap around them. Graphics pasted into the text sheet will update more rapidly as you edit the text of the document.
- A graphic at the top of the document is anchored to the top of the document as there is no return character to anchor it. Thus, if you add new paragraphs at the beginning of the document, the graphic will not move. You must go to the graphics sheet and move it so that it attaches itself to another paragraph.

## **Importing Graphics**

You can import graphics into the graphics sheet from other programs by using the Clipboard or the Scrapbook. If you paste a bitmap created with a paint program, it becomes a single object in Nisus.

Normally if you paste grouped object graphics from another graphics program into the Nisus graphics sheet, the groups can be ungrouped and individually edited, just as if they were created in Nisus. The dialog illustrated in Figure 7-50 will appear. If you want to paste them as a single group without the possibility of ungrouping in Nisus, click PICT . You can bypass this dialog by pressing Shift while pasting.

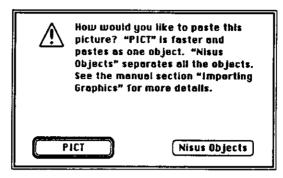


Figure 7-50 The Paste PICT dialog

This grouping is necessary when pasting a graphic with imbedded PostScript commands into the graphics sheet. When you paste such a graphic into the text sheet, the PostScript commands are automatically included in the character graphic. On the graphics sheet, however, they are recognized as separate objects. In such a case, the dialog shown in Figure 7-51 appears. If you click Pict, the PostScript commands are grouped with the bitmap as a single graphic. Press Shift while pasting to bypass this dialog.

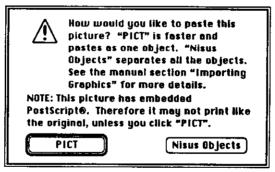


Figure 7-51 the Paste PostScript dialog

## Copying to the Graphics Sheet

You can copy and paste graphics between text and graphics sheets. You can draw object graphics on the graphics sheet and then paste them as a character graphic on the text sheet.

You can also do the opposite: copy a character graphic and paste it on the graphics sheet. This allows you to choose which method you want to use for attaching graphics to the text. It also gives you the ability to wrap text around any graphic or have the graphic on top of the text, opaque or transparent—just transfer it to the graphics sheet.

When you press Shift as you paste a graphic on the graphics sheets you do not swap paste. Instead, if it was a simple Nisus object (which has only four square handles on its corners) it is now a complex graphic (which has eight handles, four square handles on its corners and four rounded handles on its sides) which can be unscaled after it has been scaled.

## **PostScript Limitations**

If you print your document on a PostScript LaserWriter, some of the graphics may not print as they are displayed on the screen and printed on other (i.e. QuickDraw) printers. This is because some of the features supported by Nisus are not supported by the PostScript driver. This affects the following features:

- · Rounded Rectangles
- · Transparent Fills and Pen Patterns
- Invert drawing mode

To display on screen what a PostScript LaserWriter will print, choose **As PostScript®** from the **Display** submenu of the **Tools** menu. This command only applies to the graphics on the graphics sheets.

#### **Rounded Rectangles**

When using a PostScript LaserWriter to print user-defined rounded rectangles, the top curvature will also be used for the side curvature. The difference is illustrated in Figure 7-52.

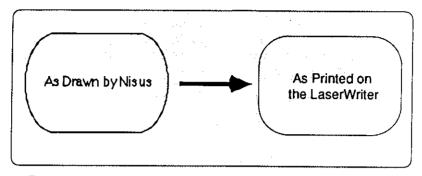


Figure 7-52 A user-defined rounded rectangle is changed when printed on a PostScript printer

This occurs only if a user-defined rounded rectangle with unequal curvatures is used.

#### **Invert Attribute**

A PostScript printer does not support this mode and has no effect on the output of graphics.

#### A Technical Afterword

#### What is a PICT

A PICT is the primary means of graphic data exchange on the Macintosh. A PICT is actually a collection of graphics primitives. Nisus understands and can work with both PICTs and graphic primitives. Nisus understands nine graphics object types, these include: lines, rectangles, ovals, arcs, "regions" (an amorphously shaped graphic), polygons, bitmaps, text and PICTs. You can edit

and modify all these graphics on a graphics sheet within Nisus. When you paste a PICT on to the *graphics sheet* Nisus will automatically "take the PICT apart." This means that Nisus will convert the PICT to graphic objects. If the PICT you are pasting on to the graphics sheet is larger than 1.5K in size or has any PostScript in it then Nisus will ask you if you would like to have the PICT taken apart. Also if you double-click on a PICT type graphic object then a "Graphic for..." window will open. This window contains the graphic primitives of the original PICT. That is to say that the PICT has been taken apart. If you change this graphic then the original PICT will be replaced by the newly edited PICT.

### PostScript and other Data in PICTS

A PICT can contain PostScript and other information that is not a graphic object. When you take apart a PICT that contains these this information is removed from the PICT, though all graphics object information is retained. So for example if you create a picture of a flower in a graphics program that generates PostScript output and copy it to the clipboard, this picture may actually have three versions of the flower in the PICT. One version is for display on screen, another version is for printing on a PostScript printer, and the third version may hold information that is specific to the application that created the PICT. If you take this PICT apart Nisus will remove the PostScript and all other "invisible" data.

## Desktop Publishing and HyperText Links using Page Graphics

### Introduction

You can place a graphic image of any Nisus document (one page at a time) in any other Nisus document. That image is linked to the original file. You can open the original file by double-clicking on it. You can place a page graphic on the graphics sheets, or on the text sheet. As such, they will respond as other graphics do in those environments. You can place an already existing file or you can create and place a new file at any time.

The following specialized terms are used in Placing pages:

Term	Meaning
• Parent	the primary document into which you place a page.
• Child	the Placed Page Graphic file placed into a Parent document (multiple genera- tions are possible).
• Place	the process of linking one file with another (using the above metaphor, this is like adoption when choosing Place Page or producing your own Child when choosing Place New Page).
Barren file	a Parent document that has had the links to its Child file or files broken (either through their being moved or de- stroyed). (English has no unique term for this phenomenon.)

## Placing a Page Graphic

Choose Prace Page... from the Tools menu. When the Place Page version of the Open dialog Figure 8-1 appears you can choose from any Nisus file already created. If a file has more than one page you should indicate which page of that file you wish to place, as only one page of a file is placed at a time (counting in absolute page numbers not as numbered in the document). The file is placed with all fonts and graphics in their original size. You can resize and/or crop the entire graphic after placement, and also scale the graphic using the graphics tools of Nisus. You can also choose the scaled proportion before placing if you wish.

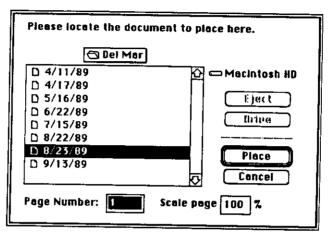


Figure 8-1 The Place Page... dialog

Only numbers can be entered in the text edit boxes at the bottom of this dialog, if you type alphabetics they will scroll the list of available files that you can place.

When the settings are as you desire, click Place

If the Placed Page Graphic is larger than the page of the Parent document, the warning dialog illustrated in Figure 8-2 will appear.

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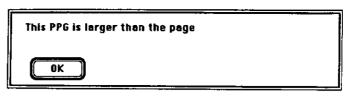


Figure 8-2 The Place Page warning dialog

The width of the graphic placed is determined by the page margins set in Layout Page (the gray area on the Master Ruler). The height of the graphic depends on whether it is placed on the graphics sheets or the text sheet.

- On the text sheet the height of a Placed Page is already set to an inch and a half.
- On the graphics sheets the height of a Placed Page is determined by the height of the original page.

The placed page will appear in the Parent document with the four handles of a pasted graphic object. You can crop or resize the image by adjusting either the rounded or square handles respectively.

You can open the placed file to edit it any manner, by double-clicking on it.

- A page placed on the text sheet behaves as if it were a character graphic. A page placed on the graphics sheets always appears with the attribute of Fix to Page, though this can be changed simply by choosing Move with ¶ from the Page/¶ menu.
- A Child file can be placed in more than one parent document.

## Placing a New Page Graphic

To place a page that does not yet exist in your document, choose **Place New Page** from the **Tools** menu. The object illustrated in Figure 8-3 will appear at your insertion point.

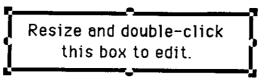


Figure 8-3 the Place New Page edit box

As indicated in the placed object, you can resize this object to whatever proportions you want, and, if it is on a graphic sheet, you can move it wherever you wish (on the text sheet it functions as a character graphic). When you double-click on it Nisus will open a new Child file the size of the box you have defined. If you have created one, it will open your Nisus New File (in which case, the width of the line is actually determined by the width of the margins as set in Layout Page... rather than by the way you drag the original object). If you do not have a Nisus New File, the margin limits will be set as you have defined the box. You can edit this file just as any other Nisus file.

## **Uses for Page Graphics**

The Placed Page Graphic is a very useful tool for desktop publishing and for on-disk inter file communication.

## **Desktop Publishing with Page Graphics**

Placing Page graphics both on the graphic sheets and the text sheets of Nisus allows you extreme flexibility in shaping the appearance of your page.

#### Different Column Widths

You can use a placed page to mix different column formats and/or have a document with independent columns of varying widths.

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 You can set up the left column of a letterhead stationery as illustrated in Figure 8-4.

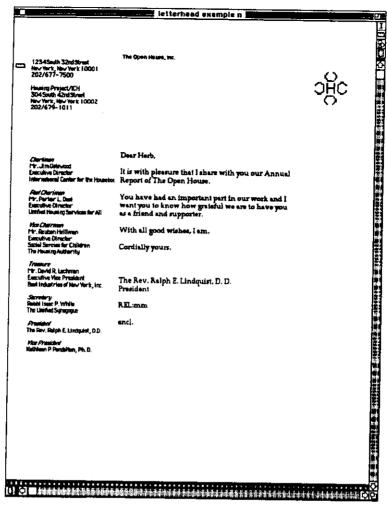


Figure 8-4 Left Column letterhead stationery

 You can have a three (or other number) column newsletter with a separate article spanning two or more columns.

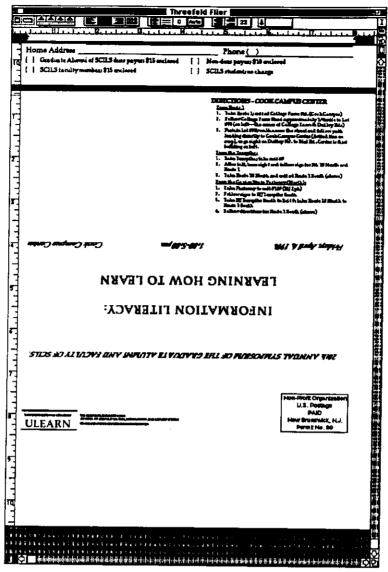


Figure 8-5 A rotated Page Graphic placed on the back of a Threefold flier

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#### **Rotate Sections of Text**

You can place a page from another document and rotate it in the Parent document.

- One example of this technique was used shown in Figure 4-89 on page 167. Figure 4-90 on page 164 and Figure 4-91 on page 165, of this manual.
- Another example can be seen in Figure 8-5 where a rotated page graphic is used as the back panel of a threefold flier.

#### Create Complex Graphics

You can create graphics that appear to disobey the rules of Nisus as illustrated in Figure 7-18 on page 254 through Figure 7-24 on page 261 (except Figure 7-20, which is a very simple, filled polygon graphic on the graphics sheet behind the text). Each of these is a small document that exhibits **Display** attributes of a file that are not attributes of the Parent file.

## **HyperText using Page Graphics**

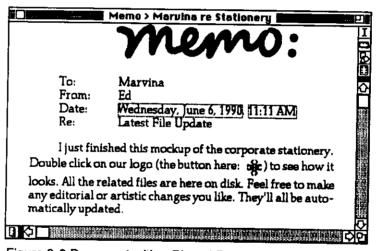


Figure 8-6 Document with a Placed Page resized to a "button"

You can insert a page graphic anywhere in your file and resize or crop it down to the size of a "button." So long as the link with the original file has not been broken, when you double-click the button in the Parent, the entire original Child file opens for reading and/or editing. An example of how a button can be included in a file is illustrated in Figure 8-6.

## **Breaking Links**

If you rename, move or destroy a Child file you will destroy the link between it and the Parent document, causing it to become a Barren file. If you then try to open the Child file from within the Parent, (by double-clicking on the graphic representation of that Child file that had been placed in a Parent document), a variant of the Place Page dialog, as illustrated in Figure 8-7, will appear asking you to find the original file. You can place any file at this time. If the original file has been renamed or moved, simply place the file with the new name or the original file from the new folder. If the original file has been destroyed, all that remains is the graphic representation of that file and you will not have access it.

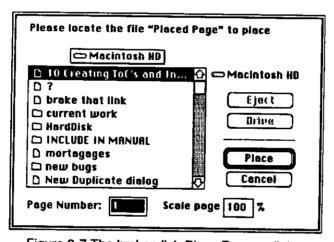


Figure 8-7 The broken link Place Page... dialog

A Child file that appears in a Parent document can be altered and saved to another folder or disk. Choose Save As... to accomplish

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this. However, be sure to choose **Save As...** and save it to its original location as well. Otherwise the Parent document will become Barren. If this occurs you will have to search for Child file if you want to make any changes in it that should appear in Parent document.

# Assorted Facts Regarding Placed Page Graphics

- One Child can be placed in many Parents.
- Different parts of one Child can be placed in different parts of one Parent and/or different Parents.
- The same part of any Child can be placed in different parts of one Parent and/or different Parents.
- When a Child is change, its appearance will change when its Parent is opened.
- All Placed Page Graphics on the graphics sheets enter as though Transparent is the current setting of the Graphics Palette (though they print as such only on QuickDraw printers).
- Placed Page Graphics placed on the graphics sheets enter as though Fix to Page is the current setting of the Graphics Palette.
- Placed Page Graphics placed on the graphics sheets enter and assume the attributes that are currently set for the Front/Behind Text and Text Wrap menus.

# Reading Nisus Documents with PageMaker®

Included with Nisus is an application called 'PMInstall'. If you have PageMaker version 2.0a or 3.0, this application will modify PageMaker so that you can "Place..." Nisus documents and stationery. It does so by copying a resource called an import/export filter into the PageMaker application.

In order to install Nisus' filter you must first remove the Smart ASCII Filter PageMaker uses to import data from other word processors.

Using a copy of PageMaker dedicated to Nisus, open PageMaker's Installer and remove the Smart ASCII Filter. Save this new version of PageMaker and then run the program PMInstall shipped with Nisus.

After opening the installer application you will be presented with a dialog with three buttons: Install, Remove, and Quit. To copy the import filter into PageMaker, click Install then choose the PageMaker application you wish to modify (a dialog showing PageMaker applications to choose from will appear). To delete the filter from a modified PageMaker application, click Remove and choose the application. After the operation is performed, a dialog will appear with a success message.

Never modify your original application; make a backup copy of PageMaker and install the filter into the copy.

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## Working with the Glossary

The Nisus glossary saves typing effort and maintains consistency within your document. As you write, Nisus associates short abbreviations with long entries. At your command, it replaces the abbreviations with the corresponding glossary entries. The **Glossary** submenu of the **Tools** menu is illustrated in Figure 9-1.

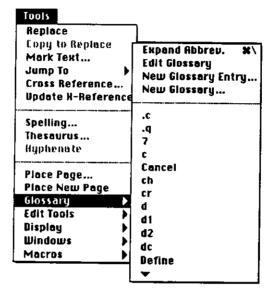


Figure 9-1 Tools menu with Glossary submenu showing

You can use the glossary to avoid typing frequently used blocks of text, such as a company address or logo, or to spell out an acronym. For example, you can write usa instead of United States of America and then have the glossary make the substitution later. This will not only save time while typing, but will guarantee that the substitution is consistent throughout the document. Notice that the abbreviation usa is used instead of the more obvious, USA. This is to avoid any conflict with parts of a document where you want to write USA.

Care should be taken when assigning abbreviations to glossary entries. Choose an abbreviation that will not accidentally match other text in your document. For abbreviations that match the spelling of words, use all uppercase letters to distinguish the abbreviation from the word.

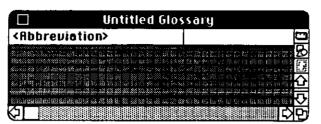


Figure 9-2 An empty glossary

An empty glossary is shown in Figure 9-2. To access it, choose **Edit Glossary** from **Glossary** submenu of the **Tools** menu. The abbreviations are displayed on the left side, and the glossary entries on the right.

# **Creating, Naming and Deleting Entries**

To make a new entry, choose **New Glossary Entry...** from the **Glossary** submenu of the **Tools**. The Abbreviation dialog as shown in Figure 9-3 appears.

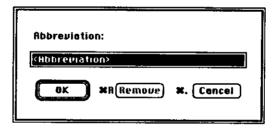


Figure 9-3 Abbreviation dialog

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Type the abbreviation that you want to represent the glossary entry into the text edit box (where you see the word < fb breviation>. Note that you cannot use any spaces or tabs. After typing the abbreviation, click or press Return or Enter. If that abbreviation is already used in the glossary, you will be notified with the dialog shown in Figure 9-4 so that you can type one that does not conflict.

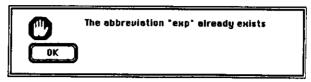


Figure 9-4 Abbreviations must have unique names

You will then see the new abbreviation in the Glossary window and the insertion point will prompt you for the expanded text.

To delete an entry and its abbreviation, double-click on the abbreviation in the Glossary window to bring up the Abbreviation dialog and then click Remove. Empty glossaries always contain a single entry and this cannot be deleted.

## **Editing Entries**

To edit an existing glossary entry choose **Edit Glossary** from the **Giossary** submenu or press the Option key while you choose the abbreviation you wish to edit from the list that appears at the bottom of the **Glossary** submenu.

When the Glossary window is open the **Glossary** submenu is available by pressing the Option or Command key as you click your mouse on the title bar.

Associate an abbreviation with text by typing or pasting the text on the right side of the glossary window. You may also format the text, give it attributes (fonts, sizes and styles), have it include index and contents text, and even graphics, as illustrated in Figure 9-5.

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Text of glossary entries automatically appear with the attributes Any Font, Any Size, + Any Styles, or Any Color. This means that the text of the entry will take on the attributes of the text in the document. If you want an abbreviation's text to retain specific characteristics (such as a foreign language or special character font) be sure to assign them in this window.

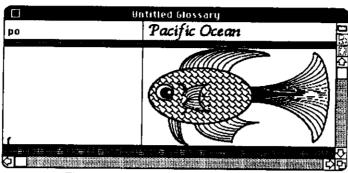


Figure 9-5 An example glossary entry

Note that in order to use graphics in the glossary, they must be pasted in because the graphics palette is not active in the glossary window. Open a new document, draw your graphic in it, then copy and paste it into the glossary as a character graphic.

## **Glossary Substitution**

Glossary substitution is very flexible in Nisus. You can insert the abbreviation's text directly from the **Glossary** submenu of the **Tools** menu simply by choosing it. If you are typing the abbreviations you can expand a single abbreviation immediately to the left of your insertion point as you are typing, or wait and substitute all glossary abbreviations in the document or in selected text at once.

### **Expanding an Abbreviation**

To expand the one abbreviation immediately to the left of your insertion point, choose Expand Abbrev. from the Glossary

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submenu of the **Tools** menu or use its key equivalent (shipped as) %\.

Expansion will occur even if you have some amount of white space between your insertion point and the abbreviation. White space includes spaces, tabs, and returns.

To expand glossary definitions in a selected region of your text:

- Select the portion of the document where you want glossary substitution to occur.
- Choose Expand Abbrev. from the Glossary submenu of the Tools menu.

To substitute glossary entries for their abbreviations in the whole document:

- Choose Select fill from the Edit menu.
- Choose Expand Abbrev. from the Glossary submenu of the Tools menu.

To substitute glossary entries as they are typed:

- · Type the abbreviation.
- Choose Expand Abbrev. or use the key equivalent % \.

The abbreviation preceding the insertion point will be converted to its glossary definition.

Note that glossary abbreviations are case-sensitive. No match will be found unless the abbreviation is a distinct word separated from other words and punctuation marks by at least one space. That means abbreviations which are parts of other words will not be matched unless they immediately precede the insertion point.

If you place the insertion point in the middle of a word and choose

**Expand Abbrev.** or its key equivalent, the characters to the left of the insertion point will be interpreted as an abbreviation.

## **Using Multiple Glossaries**

You may keep separate glossaries which hold different categories of glossary entries. The currently loaded glossary is the only one available for your immediate use.

## **Organizing Multiple Glossaries**

It is a good idea to organize glossaries so that each one contains terms for a specific purpose. For example, you might have corporate abbreviations, letterheads, legal terms in one glossary file, and a general glossary in another. Because glossary entries match all occurrences of their abbreviations in the document, it is important to know which abbreviations are in the current glossary.

#### **Creating New Glossaries**

Any glossary entries created are put into the glossary named Nisus Glossary by default. If you want to place entries in another glossary, create it by choosing New Glossary... from the Glossary submenu of the Tools menu and give it a specific name by saving it. Choose Save from the File menu while the glossary window is active. When you create a new glossary, it becomes the current glossary. Any changes you make will affect the newly created glossary unless you change glossaries.

## **Loading Existing Glossaries**

The glossary named *Nisus Glossary*, (located in the folder containing Nisus or in the System Folder), is loaded automatically when you start Nisus, and is the current glossary unless you select a new one. The current glossary is preceded by a check mark in the Catalog. To

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change glossaries, find the glossary you want in the Catalog and open it just as you open a document. The name of the currently open glossary appears in the title bar of the Glossary Window.

#### **Importing Glossaries**

Entries can be copied from one glossary to another. Open the source glossary and copy or cut the entries you want to move. Then open the target glossary, place the insertion point in any definition and paste. Note that if you select across several glossary entries, copy, and paste into the new glossary, the abbreviations will also be pasted, except for the first glossary abbreviation. The first abbreviation must be restored manually.

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# Creating Tables of Contents and Indexes

## Introduction to Tables of Contents and Indexes

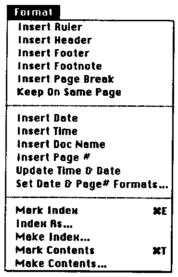


Figure 10-1 The Format menu showing the commands for marking text for the Table of Contents and Index

A Table of Contents is a list of headings related to specific sections of your document with page numbers that indicate where discussion of that subject begins. It is usually placed at the beginning of a document. It is possible to have various tables of contents: one for text and another for illustrations. Items in a Table of Contents are listed in the order in which they appear in the document.

An Index is an alphabetical list of words or phrases followed by page numbers indicating where key topics can be found anywhere in the document. It is usually placed at the back of a long document allowing key topics to be located quickly. It is possible to have various indexes: subjects, proper names, foreign words, etc.

You can mark text in your document which you want to appear in the Table of Contents or Index. Such text will be shown with a dotted box around it when you choose **Text Hilites** from the **Display** submenu of the **Tools** menu: The Index or Table of Contents is later created in a separate document which can be edited.

## The Simple Techniques

#### **Adding Entries**

To add an entry to the Table of Contents and/or the Index, select the text to be added then choose Mark Contents and/or Mark Index from the Format menu illustrated in Figure 10-1. Hierarchical contents or index generation is not supported—all entries will be copied to the Contents and/or Index documents exactly as they appear in the document.

If you want entries to be indented in the Contents and/or Index documents, they must be preceded by a tab, which can be made invisible in the document by selecting the tab character and choosing Invisible from the More Styles submenu of the Style menu (thereby not affecting the formatting of your main document). Any white space you select when adding an entry will be included along with the text when the Table of Contents and/or Index is created.

You can use this feature to separate sections automatically. Select the return character preceding the entries which begin a new section in the Table of Contents. Position the insertion point at the end of the preceding line, then click and drag to the end of the next line. The return character will be transferred along with the heading into the Contents document to produce a blank line before the heading.

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If you want text to appear in the Contents, but not in the document, make the text have the invisible style. Type the entry as you want it to appear in the Contents document, select it, choose Mark Contents, and then choose Invisible from the More Styles submenu of the Style menu. The text will be visible only in the Contents. A small vertical dotted line will designate existence of the invisible text in your document. To see it, select Invisible Text from the Display submenu of the Tools menu.

Only the text is copied, not its attributes. When you create the Contents and/or Index document, the text will appear in Geneva 12 point Plain. You can make final format decisions when all entries have been made.

#### **Removing Entries**

To remove an entry from the Table of Contents and/or the Index, select the entry (or just a part of it) and choose **Unmark Contents** and/or **Unmark Index** from the **Format** menu illustrated in Figure 10-2. At least one character of the entry must be selected for this menu item to be active. Partially selected entries will always be automatically expanded to include the whole entry before they are removed.

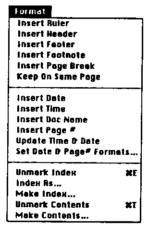


Figure 10-2 The Format menu showing the commands for unmarking text for the Table of Contents and Index

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- The commands for marking and unmarking text for the Table of Contents and Index are enabled only when text is selected. The commands toggle on and off depending on whether or not selected text has been marked. You can tell if text is selected for the Table of Contents or the Index by pulling down the Format menu and checking to see if the command reads Mark or Unmark. If the command says Unmark, the text is marked. The converse is also true.
- You can remove all selected text (contiguous or noncontiguous) from the Index or Table of Contents at once. Press the Shift key and choose Remove from Index or Remove from Contents from the Format menu. You can also remove the Index As attribute from selected text, but this text must be selected contiguously. Press the Shift key and choose Remove Index As from the Format menu.

## **Building the Contents Document**

To create a Table of Contents document which contains all currently marked entries, choose Make Contents... from the Format menu. This should be done when all the entries have been marked, but may be done at any time and any number of times to check on the current status. The Make Contents Options dialog window illustrated in Figure 10-3 appears from which you can make choices about the appearance of your Table of Contents. You may specify more than one column in the Table of Contents document. The remaining options are for page number placement and format. When you click OK, the Contents will be built by gathering each entry in the order that it appears in the document. Contents entries are placed in a separate document which can be edited.

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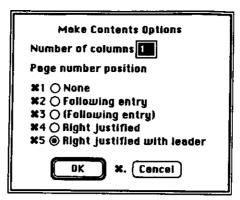


Figure 10-3 Make Contents Options Dialog with default options

Nisus opens a new file window, attaches the word "Contents" to the source document file name, and uses that for the contents file name. Once created, the contents file is just like any other file. It is not linked to the source document file in any way. If you edit your document you may need to re-create the contents. When you try saving the contents file you will notice that you have to give it a name. Its window name is only temporary, and could in fact be too long to use for saving.

## **Building the Index Document**

To build the index, choose Make Index... from the Format menu. You will be presented with a dialog as shown in Figure 10-4. Text you have selected for indexing will be compiled and placed in a new document.

Make Index Options	
Number of columns	
×S ⊠ Blank line between sections	
<b>%</b> L ⊠ Label sections	
<b>XB⊠Bold XI⊡Italic</b>	
×, □ Insert comma after entry	
Page number position	
X1 ○ None	
×2 ○ Following entry	
¥3 ○ (Following entry)	
×4 ○ Right justified	
×5     Right justified with leader	
OK X. Cancel	
<u></u>	

Figure 10-4 Make Index dialog

You may specify how the index will be formatted using this dialog. If you use more than one column, text will flow from the bottom of one column to the top of the next. If you do not have enough entries to fill a column, the index will remain in a single column at the left of the page. The column width, however, will remain the same size, even if there are no entries in the second column.

You can have a blank line follow each section. A section is a group of entries beginning with the same letter of the alphabet. If there are no entries which begin with a certain letter of the alphabet, a section will not be created for that letter. If you wish to display section headings, check the box labeled **Label Sections**. You can also choose to have the section headings appear **bold**, *italic* or *both*.

You can place a comma after each entry before the page numbers. You can list the page numbers in parentheses, right justified, or right justified preceded by a dotted leader. If all you want is a list of the indexed words, you can suppress the page numbers.

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#### **Advanced Features**

Nisus offers many advanced features that enable you to:

- · index a selection using a key word
- index using "see also"
- index overlapping entries
- · index all appearances of a term at once
- · index multiple associated words with one word at once
- index all text of a given font, size and/or style
- create multiple tables of contents and/or indexes of the same document.

#### **Using Mark Index**

Use this method to index text which will appear in the Index exactly as it appears in the text. The entire selection will be placed in the Index when you build it.

- Select the text to be indexed.
- Choose Mark Index from the Format menu.

#### **Using Index As**

The simple method of marking words for an Index would index the words *fish* and *fishing* individually. Both words will appear as separate entries in the Index.

fish 2, 7, 149 fishing 5, 6

Using Index fls... allows you to index the selection as any key word or phrase you specify. (You can, depending on the emphasis of your document, index "fish" as "fishing" or "fishing" as "fish" so that the example above would have only one entry with pages 2, 5, 6, 7, 149 following it.) This can be used to change the uppercase words in the document so they appear as lowercase in the index. Using this feature, you can also select a paragraph of text and index it as a single word.

This method also permits referencing other index entries. Readers are referred to other entries with See also,.

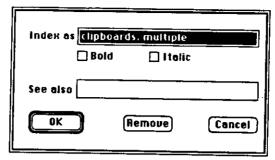


Figure 10-5 The Index As dialog

When you choose Index As..., the currently selected text appears in the Index as box. You can then, as in Figure 10-5, type the text you want to appear in the Index into this box. Note that if the selection being indexed spans a few pages, the page range will be listed in the Index.

You can also refer the reader to another entry by typing its name in the **See also** box. Make sure that the referenced entry is also indexed.

## **Indexing Overlapping Entries**

To index overlapping entries, you must use two different methods— Mark Index and Index As.... For example, if you wish to index dogs, cats, birds, and iguanas as Pets in the following sentence: "The pet store sells dogs, cats, birds, and iguanas."

The pet store sells dogs, cats, birds, and iguanas,

You would select dogs, cats, birds, and iguanas as shown above and choose Index As... from the Format menu. Type Pets in the Index As box and click OK To add iguanas to the index, select iguanas and choose Mark Index. By doing this, you have added two overlapping entries to the index: Pets and iguanas.

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The pet store sells dogs, cats, birds, and iquanas

You can index one word or phrase as several different key words. Add the key words to the text, index them either using Mark Index or Index As... or both and then make them invisible. (Choose Invisible style from the More Styles submenu of the Style menu.)

## Using Find/Replace to Mark and Unmark Index Text

You can use the Find/Replace dialog to search through your document and index the text automatically.

#### Indexing Literal Text

To index text using the Find/Replace dialog:

- Choose Find/Replace from the Tools menu.
- Choose Index from the Replace pop-up menu at the left of the dialog.
- Click in the Find box and type the text to be indexed.
- Click in the Index box and type the text to be displayed in the index.
- Click Index All

Every occurrence of the Find text will be indexed automatically. If you want to check each word found, you can step through the words with the Find button, clicking Index only when you find something that you want indexed.

The indexing done this way is equivalent to an Index As.... Of course, if you index a word as the same word, it is equivalent to a simple Mark Index. Internally, however, Index As... and Mark Index are different. This internal difference is important only when you want to create overlapping index entries or when you edit the entries. If you change the Mark Index text in the document, what

appears in the index will change also (but only if any text you add is not at the end of the indexed text). If you change the **Index As...** text in the document, the text in the index will not be changed.

If you want to remove text which was entered through Index As..., you can type the text into the Find box and leave the Index box blank. Note that this removes only Index As... entries. It does not affect Mark Index entries. Other index entries can be removed by selecting them and then choosing Unmark Index.

To remove any particular text from Index As... style (regardless of what it was indexed as), type the text in the Find box, select it and choose Index As... but leave the Index As text box empty.

#### Indexing With PowerSearch

Another advantage of using the Find/Replace dialog to index text is that you can use PowerSearch (or, if you wish, regular expressions and PowerSearch+) to find the text you want to index. PowerSearch is explained in Chapter 12. PowerSearch+ is discussed at length in Chapter 13.

For example, you may want the subject *Horses* to be indexed in your document. Horses may be discussed wherever the words *horse*, *horses*, *mare* or *colt* are used. Use the Find/Replace dialog to enter the following PowerSearch expression:

#### horse@mare@Rcolt

which will find them all, as shown in Figure 10-6. Note that the OR is not typed but entered by choosing **OR** from the **Special** menu on the menu bar of the Find/Replace dialog. This menu is accessed when PowerSearch is chosen from the Find pop-up menu.

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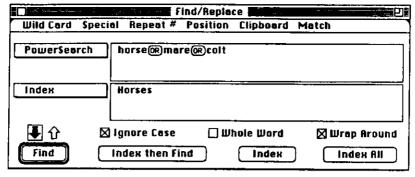


Figure 10-6 Indexing text for Horses

All occurrences of horse, horses, mare and colt will be referenced by the entry Horses in the index. If horse appears on page 10, colt on pages 3 and 4, horses on pages 2 and 25, and mare on page 2 then the entry in the index will read:

Horses 2, 3, 4, 10, 25

This method also allows you to find every occurrence of a word, while being selective about which occurrences are placed in the index. Continue clicking find until the entry is in a context you wish to index, then click Index before continuing.

If you are indexing only whole words, you may find it easier to list every word you want to find in the PowerSearch expression. Then, if you check **Whole Word** in the dialog, you may click **Index BII** without indexing any variants of your words.

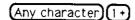
Be sure to check **Whole Word** if you do not want the above example to index the words nightmare or colter.

You are not limited to indexing words. Any PowerSearch expression may be entered, which could specify any text from single characters (such as  $\pi$  or  $\varnothing$ ) to paragraphs. You can even index a font, size or style.

To create an index entry which references all text of a given font, size and style, do the following:

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- 1. Choose PowerSearch from the Find pop-up menu
- 2. Use the menu bar to enter:



- 3. Select the above expression
- Set the attributes you want to index using the Font, Size and Style menus
- 5. Make sure Index is chosen from the Replace pop-up menu
- 5. Click Index All
- Duplicate page numbers are not listed and multiple references follow a single See also phrase.
- In the Nisus Macros file supplied there is a macro called **Sub Index** which creates sub indexes for you. Load the Nisus Macros file and read the Nisus Macro Language: Programming Dialect pamphlet, for more details on how this macro may help you in creating second level indexes.

#### Creating Multiple Tables of Contents and Indexes

You can make multiple tables of contents and/or indexes of the same document without altering your text, as was done with this manual.

- Choose Define Style... from the Style menu to establish specific named styles to the sections you want to be in the various tables of contents. For example: "Heading," "Subheading," "Illustration," etc.
- 2. When you are ready to create your Table of Contents, decide which levels, or categories, of contents you want included, and turn on **Table of Contents** in the Define Style dialog for those particular styles.
- 3. Choose Make Contents... from the Format menu.
- 4. To make the second, etc. Table of Contents, return to the Define Style dialog, turn off **Table of Contents** for those User Styles you do not want in this table and turn on **Table of Contents** for those styles you do.

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The above example can be applied to preparing different indexes simply by choosing Index in the Define Style... dialog instead of Table of Contents. This is especially useful when working with foreign languages or unusual fonts.

## Identifying Indexed Text

All text which has been indexed, or indexed As, is shown inside a
dotted box when the Text Hilites command is checked. If you do
not have the boxes showing, and you make a change in any of the
indexed text, the Text Hilites is automatically turned on. Note tha
the dotted boxes for Mark Index text "" differ from those
for Index As text "
The text placed in the table of contents is also shown inside dotted
boxes "". To identify the three kinds of boxes, select any part of the boxed text then look at the <b>Format</b> menu.

If the command Unmark Contents is enabled, the text selected is in the contents. If Unmark Index is enabled, the selected text is in the index. If neither of these commands is enabled, select it and choose Index As.... The Index As dialog will open to show you as what the text was indexed. Click Remove to remove it from the index.

IF It is not possible to index items in the footnotes.



## 11 Special Tools

This chapter describes features that are provided as tools to help you in a variety of situations. The following features are described:

- Line Numbering
- Comparing Files
- Synchronous Scrolling
- · Quote and Parenthesis Matching
- · The ASCII Table

## **Line Numbering**

This is useful if you are preparing legal documents, or documentation in which you need to reference line numbers. You can have a document with each line numbered, either from the top of each page or from the beginning of the document.

To display line numbers in the left margin, choose Line Numbers from the Display submenu of the Tools menu. Initially, line numbering will count from the beginning of the document and number every line. You may restart numbering with each page, set the numbering interval and change the attributes of the line numbers. Choose Line # Prefs... from the Display submenu of the Tools menu. Choose the Font, Size and Style of the line numbers you want while this dialog is active using the menus in the menu bar.

Line numbers must fit within the height of the line that they number. They will be clipped if their height is larger. See Line Numbering Preferences, in Chapter 15, Customizing Nisus, page 323.

If you print the document when line numbers are showing, they will be printed.

- It is not possible to number lines in the footnotes (they will appear in the Footnotes for... window, but not in the master document).
- A "Pleading Page" stationery document is shipped with Nisus. Simply open this document and you will be able to enter text on a standard pleading page.

## **Comparing Files**

Nisus can compare two files automatically. Comparing files is useful when you have made changes and have forgotten what they were, or you want to check what changes someone else has made.

- Open the two files to be checked, press Shift and click in the zoom box of one of the windows. This will place the two windows side-by-side ready for comparison.
- Place the insertion point of each file at the start of the text you wish to compare.
- Choose Compare from the Edit Tools submenu of the Tools menu.

The insertion point will jump to the position of the first difference in both windows. If no difference is found, a dialog will appear to notify you. This method of comparison catches *all* differences in text, including white space differences. It will however not compare font, size or style attributes. To ignore *repeated* white spaces, press Option while choosing **Compare**. Nisus will still find a difference if one file had no space while the other file had one, repeated spaces and tabs however will be counted as one.

When you are comparing files and you have them opened side-by-side it is convenient to have them scroll together. Choose **Sync. Scrolling** from the **Edit Tools** submenu of the **Tools** menu as explained on page 200.

You can scroll or select text in a window that is not the front window by holding down the Command key. This is useful when comparing text because one of the two windows is not active.

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## **Synchronous Scrolling**

This feature is provided to facilitate non-automated comparison of files. When you choose **Sync. Scrolling** from the **Edit Tools** submenu of the **Tools** menu, the two windows last accessed will be synchronized. As you scroll one of them, the other will automatically scroll by the same amount.

Nisus displays the icon on the right side of the information bar when windows are synchronized. Choose **Sync. Scrolling** once more or close one of the windows to cancel synchronization.

- You can arrange the front two windows side-by-side by pressing Shift and zooming one of the zoom boxes.
- If you hold down the Shift key when scrolling the front window, it automatically synchronizes with the window behind it.
- For more information on working with multiple windows see page 195.

## **Matching Quotes and Parentheses**

If you want to make sure that you have not forgotten to close a quote or a parenthesis, Nisus has a special feature that allows you to check for unmatched quotes and parentheses. This feature can also be used by programmers to find unmatched comments, begins, ends and so on. The definition of parentheses and quotes can be easily modified by choosing **Parentheses...** from the **Preferences** submenu of the **File** menu. See page 450 for details on how to set the parentheses preferences.

Nisus keeps track of your parentheses and displays them on the right side of the information bar. You can use this feature either interactively or after you have finished typing. If the **Check parenthesis** option is checked then opening parentheses are added to the information bar as you type them, and are removed when you type closing parentheses. You can set this option by choosing **Parentheses**...

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from the Preferences submenu and when the Parentheses Preferences dialog Figure 15-9, (page 450) is displayed check the Check parenthesis box.

Two kinds of parentheses are recognized. The first kind acts just like standard parentheses and can be nested. The second kind quotes text and prevents parentheses checking from being done inside these quotes. Examples are:

- The '(' is a left parenthesis
- The apostrophe (" ' ") can be both an open quote and close quote symbol
- The opening double quote " and the closing double quote "
- The opening single quote 'and the closing single quote'

In the first example, the first quote begins a quoted expression. The left parenthesis that follows is ignored by the parentheses checker, because it is inside a quoted expression. Finally, a closing quote is encountered, which balances the opening quote.

In the second example a left parenthesis is encountered. The double quote that follows begins a quoted expression, and all text up until the closing double quotes is ignored by the parenthesis checker. When the right parentheses is encountered, closing the left parenthesis, the expression is balanced.

Nisus recognizes several variations of both types of parentheses. You may add your own or change the predefined variations. See page 450 for directions.

The following examples illustrate the use of nested parentheses in algebra.

$$3[4x-2y(6-2\pi i)]+7xy$$

Nisus assumes that when you have overlapping parentheses you have made an error. For example:

([])

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is an error. You must close one kind of parenthesis before you open another. It also assumes that you will enter matching and closing parentheses in order. For example, if you enter text like the following:

((]))

- Nisus will display ((])) in the information bar indicating that it cannot match the opening and closing parentheses because there was an intervening bracket.
- Sometimes, when you have pasted or cut some text with parentheses, or when you have just turned on parenthesis checking, you will need to refresh the information bar display. Choose **Recount Parens** from the **Edit Tools** submenu of the **Tools** menu.

An additional feature of parenthesis matching allows you to find the closest set of matching parentheses on either side of the insertion point. Place the insertion point just inside a parenthesis you want to match and choose **Balance** () from the **Edit Tools** submenu of the **Tools** menu. The balanced set of parentheses and the text in between will be selected if a match is found, as illustrated in Figure 11-1; otherwise a beep will sound.

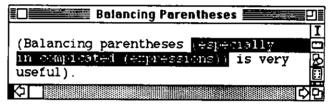


Figure 11-1 Result of Balance () command

## **ASCII Codes**

If you want to enter special symbols into your text or if you are moving files to or from other computers, or want to remove nonprinting characters from your text, this section is for you.

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Computers can only recognize and process numbers. In order to deal with character symbols, each such character is coded as a whole number. The standard code adopted by almost all computer manufacturers is called the ASCII code.

ASCII is an acronym for the  $\underline{\mathbf{A}}$ merican  $\underline{\mathbf{S}}$ tandard  $\underline{\mathbf{C}}$ ode for  $\underline{\mathbf{I}}$ nformation  $\underline{\mathbf{I}}$ nterchange. The extended ASCII includes number codes from 0 through 255.

The standard characters have ASCII codes beginning with 32 (space) and ending with 126 (tilde). Some codes are used for the Tab and the Return character. In order of increasing codes they are:

- The Tab (ASCII 9), the explicit page break (ASCII 12), the Return (ASCII 13) and the space (ASCII 32)
- The symbols: !"#\$%&'()\*+ ,-./
- Numeric characters: 0 through 9
- The symbols: :;<=>?@
- All the uppercase alphabetic characters: A through Z
- The symbols: [\]^\_
- The lowercase alphabetic characters a through z
- The symbols: {|}~

The last symbol (tilde) has the ASCII code 126. Other character codes represent different special symbols that depend upon the font being used.

For an explanation of how different ASCII values affect the sorting of paragraphs in your document, see page 121.

In the fonts shipped with the standard Macintosh system a few of the remaining codes display as special characters. For example the Apple symbol (♠) is available in Chicago as ASCII 20 (also 249) and the cloverleaf (propeller) symbol as (ℜ) ASCII 17. The diamond symbol (♠) is available as ASCII 19. These three characters are useful in writing macros. While they appear as above in Chicago font, in the Macros window they appear as (Option), ℜ (Command) and ♠ (Shift) respectively. The other undefined characters are either invisible on the screen or appear as the default character, usually a small open rectangle □.

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Nisus will read and display ASCII files, that is, pure text files. If you have moved text files from other computers, they are most likely to be ASCII files. You can conveniently use Nisus to clean up these from any unnecessary visible or invisible characters. Choose Zap Gremlins from the Edit menu.

See Gremlins page 123 for a definition of Gremlins. You can also customize such tasks by writing your own macros.

#### The ASCII Table

The ASCII table, illustrated in Figure 11-2, is useful if you want to insert some special symbols (for example  $\clubsuit \Rightarrow \Re \square \bullet f \lor$ ) into your document, or if you want to find out the code for a character.

You can display all the available characters of a font, along with their decimal and hexadecimal representations, using the ASCII table. Choose ASCII Table from the Edit Tools submenu of the Tools menu.

The first column in the table shows the ASCII code as a hexadecimal number. The second column shows the same number as a decimal number. The third column shows the character represented by that code. Scroll through the table to see the rest of the codes and characters. You can change the font of the display in the usual way by selecting it from the Font menu. Use this table in several ways:

- As a reference.
- To enter any ASCII code into your document.
- To determine what code is generated when a given key is pressed.
- To enter special codes into your document or into the Find dialog.

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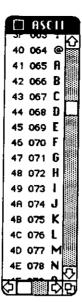


Figure 11-2 The ASCII table

There are two ways you can enter a code from the ASCII table into your document or the Find/Replace dialog:

- Select a code, copy it, then paste it in your window, or
- Double-click a code. This will enter it into your window at the insertion point.

To find out which code is generated when a key is pressed, make the ASCII table the active window and press the key. This will highlight the ASCII code. Note that Command, Control, Shift and Option are modifier keys and do not generate any ASCII codes.

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# Pattern Matching Using PowerSearch

These are some of the things that you can do with pattern matching:

- Find text in a particular font, size, or style and then replace it with the same text but with a different font, size, or style.
- Change the first character of the first word of every paragraph to a specific font, size or style.
- Replace every underlined word with the contents of a designated clipboard.
- Check your document for correct punctuation.
- Find all capitalized words which do not begin a sentence.

Nisus offers two ways of describing patterns: PowerSearch and PowerSearch+. Although PowerSearch+ is more compact and powerful, PowerSearch uses short common language statements to describe patterns and is easier to use. You will discover that pattern matching using PowerSearch gives you a lot of the power of PowerSearch+ without requiring nearly as much learning.

### **Introduction to Pattern Matching**

Nisus can search for text that is described by specific patterns; this is called "pattern matching." To describe a pattern, a shorthand language of predefined symbols called metacharacters is used. Metacharacters are combined to form a pattern called a "regular expression." The ability to translate these regular expressions is called GREP which is an acronym for Global Regular Expression Parser. In Nisus the menu commands PowerSearch+ and PowerSearch are used to refer to the shorthand language of GREP. The Quick Reference Guide has a listing of all the metacharacters.

#### The following terminology is used throughout this chapter:

• Metacharacters The special symbols in PowerSearch+.

or menu commands in PowerSearch, used to build a regular expression.

• Regular Expression Any pattern which is built using a

combination of metacharacters and

literal text.

• Find Pattern The regular expression entered in the

Find box.

• Found Text The text which is found and selected

upon pattern matching.

• Replacement Pattern

The regular expression entered in the Replace box.

• Literal Text Text in which each character is matched

exactly as displayed, without any translation to other special meanings.

• Wild Card A metacharacter that matches any

character from a particular set of

possibilities.

To become familiar with PowerSearch+ takes practice and some learning effort, so Nisus offers PowerSearch which is easy to use and understand. To construct a regular expression using PowerSearch, choose the short, common language statements, describing each metacharacter, from the pop-down menus provided in the Find/Replace dialog.

## Getting Started with PowerSearch

- 1. Choose Find/Replace... from the Tools menu.
- 2. Choose PowerSearch from the Find pop-up menu. A larger Find/Replace dialog is displayed as in Figure 12-1. This dialog displays a menu bar of common language descriptions which you can choose to describe a Find Pattern.
- 3. Construct the Find Pattern. Click the search options you want and press Return to start the search.

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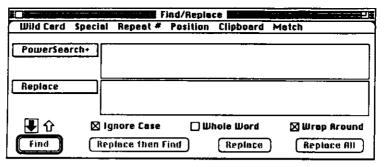


Figure 12-1 Zoomed Find/Replace dialog

You can switch between the two versions of the Find/Replace dialog by clicking its zoom box. The larger version is used with PowerSearch.

#### **PowerSearch Examples**

Changing the size of a font

Type some text in 14 point Times and some in other fonts and sizes. To search for all text written in 14 point Times and replace it with the same text in 12 point Times, place the insertion point at the beginning of your text and follow these steps:

- Choose Find/Replace from the Tools menu. Choose PowerSearch from the Find pop-up menu. Click in the Find box. Choose Any character or ¶ from the Wild Card menu.
- Choose 1+ from the Repeat # menu.
   The following Find Pattern is displayed in the Find box:

Any character or 4 (1+)

3. Select the text in the Find box and choose **Times** from the **Font** menu and choose **14** from the **Size** menu.

4. Click in the Replace box. Choose **Found** from the **Match** menu. This is what will appear in the Replace box:

(Found)

- Select the replacement pattern in the Replace box. Choose Times from the Font menu and then choose 12 from the Size menu.
- 6. Click Replace All

If any replacements were made, a dialog will be displayed showing the number of non contiguous text segments in 14 point Times that have been replaced with the same text in 12 point Times.

## Searching for words at the beginning of a paragraph

To search for the word "Nisus" at the beginning of a paragraph and ignore all other occurrences:

 Choose ¶ Start from the Position menu and type Nisus in the Find box. The following find pattern is displayed:

(9 Start) Nisus

- 2. Make sure that Wrap Around is checked.
- 3. Click Find

#### Removing extra blank lines

To search for two or more contiguous return characters and replace them with a single one, do this:

Place the insertion point in the Find box. Choose ¶ from the Special menu. Choose ¶ again. Choose 1 + from the Repeat # menu. The following is displayed in the Find box:



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2. Click in the Replace box. Choose ¶ from the **Special** menu. Click [Replace All].

#### Finding a word from two (or more) alternatives

- 1. Type some text in your document including the words John and Marie.
- 2. Choose Find/Replace from the Tools menu. Place the insertion point in the Find box and type John. Choose OR from the Special menu and type Marie. This is what the find pattern should look like:

#### John (R) Marie

The search will stop at the first occurrence of either "John" or "Marie".

These are some examples of what you can do with PowerSearch. The PowerSearch commands are presented below, grouped by menu categories. Their equivalent metacharacters or symbols are also listed. These symbols will be understood after reading Chapter 13. Note, however, that the symbols can only be used in PowerSearch+ (not PowerSearch).

#### **PowerSearch Commands**

The menu bar at the top of the Find/Replace dialog in Figure 12-1 contains the following menus: Wild Card, Special, Repeat #, Position, Clipboard, and Match. These menus contain the most common metacharacters used in building regular expressions. These metacharacters are a subset of the metacharacters available in PowerSearch+, see Chapter 13.

When you choose a menu item, Nisus inserts a short descriptive language statement. You can select, delete, cut, copy, and paste these statements. Although it is possible to paste them into your document this is not usual. They are principally for use in the Find/Replace dialog and in Macro Files. The following sections

describe each PowerSearch menu command and what it matches. The equivalent symbol used in PowerSearch+ is included in parentheses.

#### PowerSearch Rules

The menu commands in PowerSearch are organized into several categories. Each is placed on a separate pop-down menu in the Find/Replace dialog. The "Wild Cards" category includes all character descriptions which will match more than one character. The other menu names are self explanatory.

It is important to recognize that the Position category represents positions and not characters. When a position category is found, therefore, nothing is highlighted. This should be contrasted with the case where one or more characters are found and are highlighted. For example, if you search for the beginning of a paragraph (¶ Start) the insertion point will jump to the next paragraph beginning, but will not highlight any text. If on the other hand you search for a word beginning with the letter "a", the expression:

Word Start)a

will cause the insertion point to jump to the beginning of the next word beginning with the letter "a" and will highlight that letter "a". Another example will illustrate the meaning of the "Character On Left" and "Character On Right" commands. Suppose you enter the expression:

Character On Left:) 3

into the Find box and click the Find button: the insertion point will jump to the right of the first digit without any text being highlighted. If on the other hand you were to enter the expression:

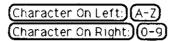
Character On Left: 34, the insertion point would jump to the first possible position between the digits "3" and "4" and then highlight the digit "4". Suppose you wanted to make the insertion point jump between the two digits 34 without selecting anything.

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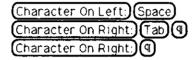
The following expression would do the trick:

```
Character On Left: 3 Character On Right: 4
```

Notice that the commands **Character On Right** and **Character On Left** cannot be followed by any wild card, but must either stand on their own or be followed by a specific character. This means that, for example, the expressions:



will not work., whereas the expressions:



will work.

#### The Wild Card Menu

This menu illustrated Figure 12-2 offers several metacharacters which are used as *wild cards*. A wild card is a symbol which matches several characters defined in a given set. A set is a range or a collection of characters. For example:

- all single digits 0-9
- all lowercase alphabetic characters 8-2



Figure 12-2 The Wild Card Menu

Any character (Any character) (.)

This matches any character except return. The expression:

apologize (Any character)

matches the word apologize followed by any character except a return (¶). A search (with **Whole Word** unchecked) for this expression would find apologizes, apologize. (a period at the end) and apologize (with a space at the end).

Any character or ¶ (Any character or ¶) (:? or :.)

This matches any character including a return.

A-Z a-z (A-Z a-z) (:a)

This matches any alphabetic character. That is any letter from A through Z, a through z, and all the option characters which display as modified alphabetics (with diacritical marks) and are European language alphabetics. (In PowerSearch+ the metacharacter: A includes the underline as well as all these.).

A-Z a-z 0-9 (:n)

This matches any alphanumerics, that is any letter from A through Z, a through z, and all the option characters which display as modified alphabetics (with diacritical marks) and are European language alphabetics.

0-9 (-d)

This matches any digit 0 through 9. So the Find Pattern:

(0-9)(0-9)

would match a two digit number such as 93.

a-z (:1)

This matches any lowercase letter a through z including all the modified lowercase characters.

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For example a search for the regular expression:

(a-z)ind

will stop at find and mind but ignore Bind.

A-Z A-Z (:u)

This matches any uppercase letter A through Z.

Space or Tab (Space or Tab) (:b)

This matches either a space or a tab character. Use it to search for unwanted blank characters.

### The Special Menu

This menu illustrated in Figure 12-3 contains the **OR** metacharacter which is used to designate alternatives in your search. It also contains the commonly used *white space* metacharacters: ¶ (the return character), **Space**, **Tab**, and explicit **Page Break**.



Figure 12-3 The Special Menu

OR (Space or Tab) (1)

If you have an **OR** statement between two expressions involving text or graphics, then there is a match if either of the two expressions occurs in the text. You can search for one or more words by separating them with the **OR** statement. For example, the expression:

alpha@beta

matches the word alpha or beta and no others.

### Thomas@REllis@RJohn@RMaru

matches any one of the names: Thomas, Ellis, John, or Mary. Note the **OR** statement refers to everything to its left (back to the previous **OR**) and everything to its right (up to the next **OR**).

This matches a return character, shown as " $\P$ " when you choose **Space Tab &**  $\P$  from the **Display** submenu of the **Tools** menu. For example, the regular expression:

matches any two consecutive blank lines.

This metacharacter matches a space character: "" when you choose **Space Tab** & ¶ from the **Display** submenu of the **Tools** menu. The expression:

matches a period followed by two spaces and any uppercase character. To enter a space character in PowerSearch choose **Space** from the **Special** menu or press the Space bar. It is recommended that you choose **Space** from the menu as spaces made by pressing the Space bar are invisible unless you choose **Space Tab & T** from the **Display** submenu of the **Tools** menu.

### Tab (\t)

This metacharacter matches a tab character which appears on your screen as a right arrow: " \*\* " when you choose **Space Tab & 9** from the **Display** submenu of the **Tools** menu. To enter a tab character in PowerSearch, hold down the Shift key and press Tab or choose Tab from the Special menu. The latter method is recommended because you can then easily see the entry.

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### Page Break (Nf)

When you insert an explicit page break in a Nisus document, which appears on your screen as an open down arrow: "\" " when you choose **Space Tab & ¶** from the **Display** submenu of the **Tools** menu, the text immediately following the insertion point advances to the top of the next page.

There are two types of page breaks in Nisus: A soft page break, which is inserted automatically when text cannot fit on a page; and an explicit page break which is inserted by choosing Insert Page Break from the Format menu. You can only search for these explicit page breaks with PowerSearch.

Sometimes you will want to remove all explicit page breaks from your document. This will happen when you have made editing changes after inserting explicit page breaks. To remove page breaks:

- 1. Choose Find/Replace from the Tools menu.
- 2. Choose PowerSearch from the Find pop-up menu.
- 3. Choose Page Break from the Special Menu. This is what will appear in the Find box:

Page Break

- 4. Leave the Replace box blank.
- 5. Click Replace All. All explicit page breaks will be removed.

#### The Occurrences Menu

This menu illustrated in Figure 12-4 contains the following three items: 0+, 1+, and 0 or 1. There is a match only if the previous character or wild card occurs the indicated number of times (including zero). Note that when the search is forward through the file, the match is always the longest possible. If the search is in the reverse direction, the match is the shortest possible. It can be used following any character or wild card.



Figure 12-4 The Repeat # Menu

0+ (+)

### Expression(0+)

This statement allows the previous character (or parenthesized expression) to be repeated zero or any number of times. The regular expression:



will match any sequence of alphabetics. Whereas the expression:

AB(0+)

matches text consisting of an A followed by any number of B's (including none at all). Therefore it matches A, AB, ABB etc. Note that 0+ refers to the character (or parenthesized expression) immediately to its left. It can be used to designate a repeating wild card or a repeating specific character. For example, the expression:

(AB)

will match any sequence of AB, such as ABAB. Note that because it will also match zero occurrences of the parenthesized pattern, the insertion point will jump to the next position whatever the text pattern is, except that, in the case when the next character sequence matches our pattern, it will be selected.

1+ (+)

## Expression (1-)

This statement allows the previous character, wild card or parenthesized expression to be repeated one or any number of times.

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For example, the regular expression:

matches AB, ABB and ABBB but does not match A while the regular expression:

matches AB, ABAB or ABABAB.

This statement allows the previous character, wild card or parenthesized expression to be repeated zero or one time. Thus the expression:

matches A in AC and AB in ABB.

In the above examples the **Whole Word** option must be unchecked.

#### The Position Menu

This menu, illustrated in Figure 12-5, contains commands which do not cause any selection of text. They are usually used to specify the beginning or end of a text pattern match. If they are used on their own (without any text pattern), the Find command will cause the insertion point to jump to the next matching position without selecting anything.

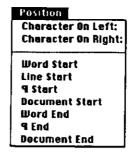


Figure 12-5 The Position Menu

When one of these position designators is used in the Find Pattern the insertion point is moved to the matching position. If there is a Replacement Pattern and the Replace command is invoked, the replacement will take place at the new location of the insertion point. For example, if your Find Pattern is <u>word Start</u> and the Replacement Pattern is "\$", the dollar sign will be inserted at the beginning of the next word. As another example, if you want to insert "=" at the beginning of each paragraph, your Find Pattern would be <u>q Start</u> and the Replacement Pattern would be "=" (without the quotes).

The Position menu commands are only available in the Find box. They are disabled in the Replace box. In the listing below, the special symbol  $\mathcal A$  can be replaced by any specific character but not a wild card.

Character On Left: Character On Left:) A (:<)

When Nisus finds a match to the character specified, it moves the insertion point to the right of that character. A search for:

Character On Left: Ving

will select "ing" in "moving," "leaving" and "grooving," but ignore it in "dancing". In this example, the **Whole Word** option must be unchecked otherwise no match will be found.

Character On Right: Character On Right: A (:>)

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When Nisus finds a match to the character specified, it moves the insertion point to the left of that character. For example, a search for:

### problem (Character On Right:) \$

will select problem in problems but ignore it in problem and problematic. In this example **Whole Word** must be unchecked otherwise no match will be found.

### Word Start (Nord Start) (\<)

This moves the insertion point to the beginning of the next word. This means that the character to the left of the insertion point is not an alphanumeric or an underline, and that the character to the right is an alphanumeric or an underline. Use this metacharacter to search for prefixes. For example, a search for:

would find pre in prefer and predict but would not stop at pre in interpret.

There are characters other than alphanumerics that define a word. For example, \$.70 is a word. A full definition of a word is given at the end of Chapter 13, Definitions, page 345.

This moves the insertion point to the beginning of the next line. For example, a search for:

would only find this at the beginning of any line.

### ¶ Start (4 Start) (^)

This moves the insertion point to the beginning of the next paragraph. This means the character to the left of the insertion point is a return or the beginning of document. The find pattern:

(Start) Any character finds the first character at the beginning of a paragraph.

### Document Start (:s)

This moves the insertion point to the beginning of the document. For example, a search for:

would find Cat only if it is at the beginning of the document.

### Word End (\>)

This moves the insertion point to the end of the next word. This means that the character to the right of the insertion point is not an alphanumeric or an underline, and that the character to the left is an alphanumeric or an underline. You can use this metacharacter to search for suffixes. For example, a search for:

would find ful in helpful and restful but would not stop at ful in full.

### ¶ End (¶ End) (\$)

This moves the insertion point to the end of a paragraph. It means that the character to the right of the insertion point is either a return character or the end of document. For example, the find pattern:

finds any trailing blank characters at the end of a paragraph.

### Document End Document End (:e)

This moves the insertion point to the end of the document. For example, a search for:

would find dog only if it is at the end of the document.

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### The Clipboard Menu

**Current** Clipboard Contents (\CC)
Clipboard #0 through Clipboard #9 (\C0...\C9).

Each metacharacter in the **Clipboard** menu illustrated in Figure 12-6 refers to the text which was last copied to the corresponding clipboard. These can only be used in constructing the replacement pattern, and cannot be used in the find pattern where they are disabled. (Note however that in macro commands, they can be used in both the Find and Replacement patterns when they are placed in single quoted PowerSearch+ expressions.)

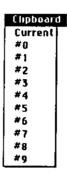


Figure 12-6 The Clipboard Menu

### The Match Menu

This menu, illustrated in Figure 12-7 contains the phrases which deal with expressions. Quite often you want to "tag" or mark a part of the Find Pattern in order to use it as part of the remaining Find Pattern or part of the Replacement Pattern. The following metacharacters are used for this purpose.

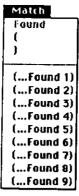


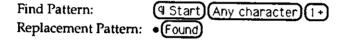
Figure 12-7 The Match Menu

### Found Found (&)

This stands for the currently found or selected text. **Found** can only be used in the replacement pattern where it means the entire text that was last found.

The ...Found metacharacter can be used to add text to a found expression.

Example: The following Find Pattern and Replace Pattern will add bullets to the beginning of each paragraph:



You can also use this metacharacter to change the attributes (font, size and styles) of text without altering the text itself. You can also use it to count the number of occurrences of certain words or phrases.

Example: Type any text in the Find box and enter Found in the Replace box and then click Replace All. Nisus will replace every occurrence of the found text with itself in effect making no change at all. It will then display in a dialog box how many replacements were made. For example, a Replace All of Paragon with Found will count how many times the word Paragon appeared in the current document, or all open documents, without making any changes to the documents.

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### ...Found 1 through ...Found 9

If you choose ... Found n (where n is any digit from one to nine) from the Match menu. Nisus inserts the statement:

in your pattern. In any expression in which (...Found 1) appears, it ("(...Found 1)") can be replaced with whatever the first parenthesized expression matches.

Example: To convert all the dates of the form mm/dd/yy to international dates of the form dd/mm/yy search for:

and replace it with:

This search will replace the date 09/28/88 with 28/09/88

### Nesting Parenthesized expressions.

When a parenthesized expression occurs inside a parenthesized expression, the numbering count starts from left to right, from the outside in.

**Example**: In the expression (in which we use A,B,C,D,E,F to represent any characters, metacharacters, or expressions):

...Found 1 would be whatever matched A, ...Found 2 would be whatever matched B ...Found 3 would be whatever matched CD and ...Found 4 would be whatever matched EF.

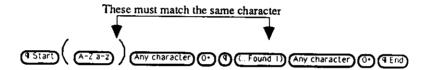
### Using Parentheses to designate repeated patterns

When a parenthesized expression is followed by one of the repeat metacharacters, the resulting regular expression matches a text pattern in which the repeated expression can be any instance of a match for the first expression. This means that the found text need not be the same for each instance of the repeat.

Example: The expression (A-7 a-2 0-9) 1+ will match any sequence of an alphabetic followed by a digit, as for example in A2D2 or C3P4. When the parenthesized expression is later followed by one of the ... Found 1 ... Found 9 metacharacters the found expression must match exactly the repeated text. For example:

would match the pattern A2B3A2B3, but would not match A2B3C4D4. Using such parenthesized expressions you can perform many useful searching and replacement operations.

Example: If you want to find two neighboring paragraphs beginning with the same first alphabetic character, your Find Pattern would be:



This would highlight both paragraphs.

Example: The Find Pattern:

together with the Replacement Pattern:

will swap the first two words in a paragraph.

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It is important to remember that you must not use any of the ... Found expressions before you have "tagged" or bracketed the appropriate number of prior expressions.

# **Replacement Patterns**

The most common use of metacharacters and regular expressions is in constructing find patterns; some are also useful in constructing replacement patterns. If a metacharacter or a regular expression has a unique match then it can be used in constructing replacement patterns. For example, the metacharacter Found (&) matches the last text selected. Because it has a unique meaning it can be used in constructing replacement patterns. The metacharacter (and in PowerSearch which matches a return character, can also be used. The metacharacter (0-9) which matches any digit from 0 through 9, cannot be used because it does not have a unique meaning. If a metacharacter is not allowed in a particular context, Nisus will usually not let you select it in PowerSearch. No such friendly restriction applies when using PowerSearch+ where you are left to your own devices and can easily create patterns which do not do what you expect.

Even in PowerSearch it is easy to create patterns which will not match anything. When this happens you are advised to rebuild your pattern from the beginning, adding only one metacharacter at a time, and checking what is being found or replaced after each such increment.



# 13

# Pattern Matching Using PowerSearch+

# Introduction to PowerSearch+

PowerSearch+ is a powerful pattern matching facility, it is also somewhat complex. It is suggested that you learn PowerSearch first in order to become familiar with the concept of pattern matching. Try to gain a good understanding of all the metacharacters before exploiting the full power of PowerSearch+, which includes all the metacharacters of PowerSearch as well as a few of its own. PowerSearch+ gives you more flexibility, including the ability (not present in PowerSearch) to define your own metacharacters or wild cards. When learning the shorthand symbols for the metacharacters used in PowerSearch+, you can use the PowerSearch menus which will enter them for you. You can also change a PowerSearch expression into the shorter PowerSearch+ expression simply by changing modes from PowerSearch to PowerSearch+. Note however that the opposite is not possible: You cannot convert a PowerSearch+ expression into a PowerSearch expression.

If pattern matching is new to you, experiment with PowerSearch before proceeding to PowerSearch+. Before using PowerSearch+ on a real document be sure to back up all your work in case any experiments you attempt fail! Remember though that any command that changes text can be undone. You will find learning PowerSearch+ to be a very rewarding experience especially when using it in macros.

You should be familiar with the following terms which were defined in Chapter 12, Pattern Matching with PowerSearch:

- Metacharacter
- Regular Expression
- Find Pattern
- Found Text
- Replacement Pattern
- Literal Text
- · Wild Card

# Getting Started with PowerSearch+

- 1. Choose Find/Replace from the Tools menu.
- Choose PowerSearch+ from the upper left pop-up menu of the Find/Replace dialog, which at start-up reads Normal Search. You can expand the dialog by clicking its zoom box. This will give you access to the various PowerSearch menus.
- 3. Using the menu bar of the Find/Replace dialog, or by typing the necessary metacharacters, construct the pattern you wish to describe. Click the search options wanted and press Return or click Find to start the search.

The menu bar at the top of the Find/Replace dialog illustrated in Figure 13-1 can be used in both PowerSearch+ and PowerSearch. If you choose a menu item Nisus inserts descriptive phrases in PowerSearch, whereas in PowerSearch+ shorthand symbols are inserted. Note that not all metacharacters are available in the menus.

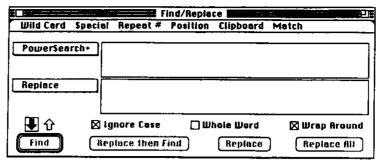


Figure 13-1 Find/Replace dialog

Most of the symbols used in PowerSearch+ are standard characters but in special combinations which are not frequently used in ordinary text. For example the combination :d stands for any digit and :a for any alphabetic. In PowerSearch+ the following characters have special meanings:

the backslash	\
the caret	۸
the asterisk	*
the plus	+
minus	-
the period	•
the colon	:
the brackets	[]
option x	=
option 7	P
shift\	I
ampersand	&

The special meanings of many of these characters are context dependent and will be described in what follows. Whenever these are used literally in a PowerSearch+ expression, they have to be preceded with the backslash\. This includes the backslash itself. Therefore two backslashes have to be used in the rare circumstance when you are using PowerSearch+ and need to search for \.

# The Modifier Characters

In constructing regular expressions the backslash and the colon are used to change the meaning of the character that follows them. They act as modifier characters.

### \ The Backslash

The backslash (\) is used to change the meaning of the character that follows it. If the following character is one of the characters with a special meaning, the backslash turns that special meaning off. If on the other hand the character has no special meaning, the backslash preceding it may switch its meaning to a special one. It is therefore called a "switch". For example the :a has a special meaning in PowerSearch+, it means any alphabetic character. If you want to use ":a" literally in your find pattern, you have to precede it with a backslash: \:a. On the other hand the character "r" on its own has no special meaning in PowerSearch+, that is it stands for "r" literally. However the combination "\r" represents the return character, whereas "\s" represents the space character. Of course a literal typed space also represents the space character but because it is not easily visible, we use \s.

The parentheses () do not have special meanings on their own. To group parts of regular expressions logically, parentheses preceded by backslashes are used. Thus \ (AB\) matches AB, but also permits referring to AB as expression 1.

A backslash (\) followed by any character other than the following characters:

```
0-9 C b f n r s t v E < > ( )
```

forms a pattern which matches that character literally. Thus,  $\ \$  matches [,  $\ \$  matches  $\ \$ , and  $\ \ \$ 

#### : The Colon

In PowerSearch+ the colon acts as a modifier of the character that follows it. For example, the pattern :d matches any digit, but the expression \:d translates to a colon followed by d.

A colon (:) followed by any character other than the following characters (printed in Courier font):

```
! # + - < > @ A N a b d e h l n o s u w x ~ *
? . å Å \partial Î(Option Shift d) \neq = ^ (Space) [
```

forms a pattern that is matched literally. For example, :k is not a metacharacter, therefore it will be matched literally as a colon followed by the letter k. The full listing of all the metacharacters and examples of their use follow.

# Parenthesized Expressions \(...\)

See also The Match Menu page 347 for the explanation and examples of the use of parenthesizing PowerSearch expressions. The same rules apply to PowerSearch+ expressions.

Parentheses are normally treated literally in regular expressions, but, when preceded with a backslash, in the Find Pattern, they take on a special meaning. The search for the expression \(RE\) (where RE stands for any regular expression) continues as if the \(() and \()\) were not present. The expression matched by RE is remembered and you can refer to it in the replacement pattern or in the rest of the Find Pattern, by \1. The metacharacter \1 matches whatever the first parenthesized expression matches. Up to nine parenthesized subpatterns of a regular expression can be referenced with the "Match" metacharacters \1, \2, through \9. To reference more than nine, you have to use the metacharacters \£10, \£11, through \£99.

Another application of paretheses is for the purpose of representing a repeating group of characters. A parenthesized expression can be repeated by following it with a repeat metacharacter. For example, the search for the pattern  $\(AB\) +$  would find AB followed by any number of repeat expressions AB as for example in ABABAB. The Find Pattern  $\(^.+\r)\$ 1 for example, matches two consecutive identical paragraphs.

Note that a parenthesized expression must appear in the search pattern to the left (before) any reference is made to any \1...\E99 expressions, for all searches forward and reverse. Parentheses may however be used without any subsequent use of these \1...\E99 expressions. Parenthesized expressions are not used in the replacement pattern.

## The OR Operation |

The symbol used for the OR operation is the vertical bar †. As in PowerSearch, this operation allows you to specify alternatives in your pattern. The "or" is always applied to the whole expression on its left and the whole expression on its right up to the next such "or" expression if any. To have two alternative endings on the same text you need to use parentheses.

For example, the pattern alpha|beta matches alpha or beta and no others, and the pattern alph\(a|abet\) matches either alpha or alphabet. Normally, if A and B are two expressions then A|B and B|A match A or B. In this case the order of A and B is unimportant.

An exception to this rule occurs when A is a part of B as the word alpha is a part of the word alphabet. In this case the order becomes significant, especially when the **Whole Word** option is unchecked.

For example when **Whole Word** is unchecked, a search for alph\(a|abet\) will never find the whole word alphabet. It will stop at the word alphabet but only select alpha. The reason is that the "or" operator is evaluated from left to right and so Nisus first looks for the first expression, alpha, and if no match occurs, it will then try to match the next expression, alphabet. Because alpha is the first part of the word alphabet, Nisus will not select the whole word alphabet unless **Whole Word** is checked. Reverse the order and you get alph\(abet|a\). This pattern matches both words, whether or not **Whole Word** is checked.

### **User Defined Wild Cards**

Wild cards are special symbols that match one of several characters. The period (.) for example, matches any character except return. The return character defines a paragraph break. The PowerSearch+metacharacter set includes several predefined wild cards. In Nisus, you can define your own wild card by specifying the set of characters it must belong to.

There are two ways to define wild cards. One way is to list all the characters that the wild card matches in between square brackets [...]. For example, the pattern [abc] is a wild card that matches any of the three letters a, b, or c and nothing else.

The second way is to list all the characters, that are not matched by the wild card, in between brackets and a caret [^...]. Here the caret reads "not in the set." For example, the pattern [^abc] is a wild card that matches any character that is not a, b, c, or return. Even though the return character is not mentioned, it is excluded because expressions in brackets [] cannot include the return character.

Note that if you want to include the return character in the set, you have to use a colon in front of the opening bracket. For example the regular expression: [abc\r] represents any one of the characters a,b,c. It does not include the return (\r) character vern though it is listed inside the brackets. The expressions: [abc\r] does include the return character. Another example: the expression [^abc] represents sny character excepts a,b,c, or return; whereas the expression: [^abc] represents any character (including a return) other than a,b,c.

In what follows it is necessary to distinguish character sets which are allowed to contain the return character and those which are not. To facilitate this distinction, we will use the notation where  $\Sigma$  (sigma) represent a set of characters which may not include the return character and  $\Sigma$ ' (sigma prime) a set which may include the return character.

The regular expression  $[\Sigma]$  matches any one of the characters in the set  $\Sigma$  and the regular expression  $:[\Sigma']$  matches any character in the set  $\Sigma'$ . Notice the need for the colon to allow the set to contain the return character.

### [ $\Sigma$ ] (any character from a set $\Sigma$ )

The set  $\Sigma$  may be defined as a range, an enumerated set, or a combination of both. To define a range use a minus (-) between the start of the range and the end of the range. For example the wild card [a-f] represents any character in the alphabetic range from a through f. The range assumes the order of increasing ASCII codes. To check the order of characters choose RSCII Table from the Edit Tools submenu of the Tools menu.

Any ASCII characters can be included as a part of the set except return. If return is included, it will be ignored unless the brackets are preceded by the colon modifier. (In any case the return must be entered using shift-return or you must use the metacharacter  $\r$ .) To enter nonprintable ASCII characters choose **ASCII Table** from the **Edit Toois** submenu, select the desired character, copy it, and then paste it in the set. For example, the pattern [0-9abc] matches any digit from 0 to 9 or any of the letters a, b or c.

Each of the specified characters must be uniquely defined, thus no wild cards can be included in the set. Metacharacters that have a unique match such as  $\s$ ,  $\r$ ,  $\t$ ,

All other characters inside the brackets [...] are taken literally. For example a search for [:a] matches a colon or an a, even though the pattern :a has a special meaning when it is outside of the brackets (meaning any alphabetic or underline character). The pattern  $[\0-\s]$  matches any control character whose ASCII code is in the range 0 to 32 (the space character). Although return (ASCII 13) is included in the range it will be ignored, whereas in : $[\0-\s]$  it will not be ignored.

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<sup>&</sup>lt;sup>1</sup>Alternatively leave the insertion point in the place where you want the character inserted, choose **ASCII Table** from the **Edit Tools** submenu of the **Tools** menu and double click on the character you want to enter.

A way to include the right bracket ] in the set is to make it the first character as in []a-z]. Another way is to precede it with a backslash as in [a]bc]. Likewise, one way to include a minus (-) in the set is to place it at the beginning or at the end of the set as in [-a-z] or [a-z-] respectively. Another way is to precede the minus with a backslash as in [a-z], which means one of the three characters a, -, or z.

### [ $^{\Sigma}$ ] (any character not from a set $\Sigma$ )

 $[^{\Sigma}]$  is a pattern that matches any character which is not in the set  $[^{\Delta}]$ . For example,  $[^{a-z}]$  matches any character which is not a lowercase alphabetic or a return and the pattern  $[^{+}]$  matches any character whose ASCII code is not in the range 33 to 126.

#### : [ $\Sigma$ '] (any character from a set $\Sigma$ ')

:  $[\Sigma']$  is a pattern which is similar to  $[\Sigma]$ , except that the return character may be included in the set  $\Sigma'$ . For example, the pattern  $[a-q \ r]$  matches any character between a and q but ignores  $\ r$ , but the pattern :  $[a-q \ r]$  matches any character from a to q including a return. In a similar way, :  $[A-Za-z \ r]$  matches any alphabetic character or a return.

### : [ $^{\Sigma}$ ] (any character not from a set $\Sigma$ )

:  $[^{\Sigma}]$  is a pattern which is similar to  $[^{\Sigma}]$ , except that the return character may be included in the set  $\Sigma'$ . While the pattern  $[^{A-Za-z}]$  matches any nonalphabetic character except a return, the pattern :  $[^{A-Za-z}r]$  matches any nonalphabetic character including a return.

# PowerSearch+ Metacharacters

Metacharacters in PowerSearch+ are divided into several categories.

 Those which only match a specified set of characters are called Wild Cards.

- Those which match only one character, usually non-printing, are called Specials.
- Those which only affect the position of the insertion point and cause no selection of text are called Positions.
- Those which are used to repeat a regular expression are called Repeat characters.
- Finally, those which are related to the clipboards are called Clipboard-related metacharacters.

### Wild Cards

The following metacharacters are predefined wild cards. Each metacharacter matches a character from a given set. You can choose some of these metacharacters from the menus in the expanded version of the Find/Replace dialog. For a complete listing of metacharacters which are available by menus, see Metacharacter Listings at the end of this chapter, page 377, or refer to the Nisus Quick Reference Guide (pamphlet). Wild Cards are only meaningful when they are used for constructing the find pattern. If used in the replacement pattern, they will be interpreted literally because they do not represent a unique match.

### . (any character except return)

A period (.) is a wild card that matches any character except return. This metacharacter is equivalent to the [^] pattern. The pattern .ffect, with **Whole Word** checked, matches words such as affect or effect.

### :. or :? (any character or return)

### :! (any gremlin)

The metacharacter: ! matches any gremlin. This metacharacter is useful in cleaning up data base output files or downloaded user

network files. Note that the **Zap Gremlins** command in the **Edit** menu is a built-in macro. It removes all gremlins from your document and any trailing spaces at the end of each paragraph. The ASCII range of a gremlin is 0 through 31 (except the 13, the return, and 8, the tab) and 127 through 255.

#### : (any control character)

A colon followed by a space is a metacharacter that matches any control character. This metacharacter may be useful in cleaning up DOS files or files downloaded from a network. The ASCII range of the control characters is from 0 through 31 (except 13, the return).

### :@ (any gremlin, tab or space but not a return)

The metacharacter : @ matches any gremlin, a tab, or a space. It is equivalent to : ! | :b

#### :a (any alphabetic)

The metacharacter: a matches any lowercase or uppercase character. It is equivalent to the pattern A-Za-z plus all the modified alphabetics which are typed using the option key.

### :A (any alphabetic or diacritical)

The metacharacter: A matches any alphabetic, underline, or modified alphabetic. It is the same as:a plus the underline.

:å (Option a) (not alphabetic, nor diacritical, nor underline)
The metacharacter :å matches any character which is not an alphabetic as defined above.

### :A (shift option a)

The same as: a but includes the underline.

#### :b (any blank)

The metacharacter: b matches either a space (ASCII 32) or a tab (ASCII 9). This is equivalent to [\s\t]. For example, :b+\$ matches any number of trailing spaces or tabs at the end of a paragraph.

### :d or :# (any digit)

The metacharacter :d (or equivalently :#) matches any digit from 0 through 9. It is equivalent to [0-9]. For example, :d:d:d matches a three digit number and :d:d:d:d matches a standard 7-digit phone number. Notice a backslash is placed before the minus. The minus has a special meaning, being a repeat character, but when it is preceded by a backslash it is interpreted literally.

### :h or :x (any hexadecimal digit)

The metacharacter :h or equivalently :x matches any hexadecimal digit; that is, any digit or any alphabetic character from a to f. It is equivalent to the pattern [0-9a-fA-F].

### :I (any lowercase)

The metacharacter :1 matches any lowercase alphabetic character from a to z plus the modified alphabetics.

## :n (any alphanumeric or underline)

The metacharacter :n matches any alphanumeric character.

## :N (any alphanumeric or diacritical)

The metacharacter: N matches any alphanumeric, underline. It is the same as: n but includes the underline.

### :0 (any octal digit)

The metacharacter : o matches any digit from 0 to 7. It is equivalent to [0-7]. Programmers may find this useful.

#### :u (any uppercase)

The metacharacter : u matches any uppercase alphabetic character in the range A to Z. It is equivalent to [A-Z].

#### :w (any character in a word)

The metacharacter: w matches any character which is part of a word as defined on page 376.

### :∂ (Option d) (diacritical or underline)

The metacharacter  $: \partial$  matches any character which is a diacritical, i.e., a modified alphabetic.

#### :≈ (Option x) (any word)

This matches any word as defined on page 376.

## :Î (Option Shift d) (Not diacritical nor underline)

It is the opposite of :∂

### :~ (Colon Tilde) (not alphanumeric)

This is the opposite of :n

### **Special Metacharacters**

Each of the following metacharacters matches one character only, usually a non-printable character such as a space or an invisible character such as the null character. Because all these metacharacters have a unique match, they can also be used in the construction of the replacement pattern.

#### \0 (null)

The metacharacter \0 (backslash zero) matches the null character whose ASCII code is 0. The null character is invisible but it can be searched for by PowerSearch+. To see if there are null characters in your document search for \0 making sure that you are in PowerSearch+ mode. You can search for the null character literally (use the ASCII table to enter it into the Find/Replace dialog) but because null characters are invisible it is easier to use PowerSearch+.

### Vb (backspace)

The metacharacter \b matches the backspace character whose ASCII code is 8. To insert a backspace character in your document choose **ASCII Table** from the **Edit Tools** submenu of the **Tools** menu and copy the ASCII 8 character. The backspace character does not perform the action of the Backspace or Delete key.

#### It (tab)

The metacharacter  $\t$  matches the tab character whose ASCII code is 9. Insert a literal tab in your search pattern by holding down Shift while pressing Tab.

### W (new line)

The metacharacter \v matches the new line character whose ASCII code is 11 (the standard vertical tab). This is used to force a new line without starting a new paragraph. This avoids any indentation on rulers and at the same time forces a line break. To insert new line characters in your document, press the Shift and Enter keys, or choose **ASCII Table** from the **Edit Tools** submenu of the **Tools** menu and copy or double-click the ASCII 11 character.

#### Vf (form feed)

The metacharacter \f matches an explicit page break or a form feed character whose ASCII code is 12. Replacing \f with nothing removes all explicit page breaks.

#### Vr (return)

The metacharacter  $\r$  matches the return character whose ASCII code is 13.

#### is (space)

The metacharacter \s matches the space character whose ASCII code is 32. It does not match a non-breakable space (Option-Space).

#### **Position Metacharacters**

These characters include the **Character On Left** and the **Character On Right** symbols which cannot be searched for on their own but can form a part of the search pattern. Each of the remaining metacharacters represents a position of the insertion point. A search for any of these metacharacters causes the insertion point to move to a defined location without selecting any text. Note that if these metacharacters are used for constructing replacement patterns, they will be interpreted literally.

#### :< (character on left)

The pattern :<x matches an insertion point position to the *right* of the character x. The character x is interpreted literally even if it is one of the predefined wild cards. For example, a search for the pattern :<. moves the insertion point to the right of a period. The pattern :<x moves the insertion point to a position where the following statement is true: "the character x is the preceding character."

The character x can be a user defined wild card but not any predefined wild card. For example, the pattern  $:u:<[^A-F]$  matches any uppercase character, represented by :u except A through F.

If the pattern  $[\Sigma]$  or  $[^{\Sigma}]$  is preceded by either :< or :> you can include the return character in the set  $\Sigma$ .

#### :> (character on right)

#### \< (word start)</pre>

A pattern preceded by the metacharacter \< matches whatever the pattern matches, provided the first character of the matched text is at the beginning of a word. A character may be at the beginning of a word if it is alphanumeric or an underline and if the character immediately to the left is not alphanumeric or an underline. In terms of other metacharacters \< is equivalent to:

A search for \< causes the insertion point to move to the beginning of the next word without selecting any text.

### > (word end)

A pattern x followed by  $\$  matches whatever x matches, provided the last character of the matched text is at the end of a word. A character may be at the end of a word if it is alphanumeric or underline and if the character immediately to its right is not alphanumeric or underline. In terms of other metacharacters  $\$  is equivalent to:

A search for \> causes the insertion point to move to the end of a word without selecting any text.

#### ^ (¶ start)

A pattern x preceded by  $\hat{}$  forms a pattern  $\hat{}$  which matches whatever x matches provided the first character of the matched text is at the beginning of a paragraph. A character is at the beginning of a paragraph if it is preceded by a return or it is at the beginning of the document. In terms of other metacharacters,  $\hat{}$  is equivalent to  $:<\langle x|:s|$ .

### \$ (¶ end)

A pattern x followed by s forms a pattern x which matches whatever s matches provided the matched text is at the end of a paragraph. A character is at the end of a paragraph if it is followed by a return or it is at the end of text. For example : b+s matches any number of blank characters (tabs or spaces) at the end of a paragraph. In terms of other metacharacters, s is equivalent to :>r: e.

### :^ (beginning of line)

A pattern x preceded by :^ forms a pattern :^x which matches whatever x matches provided the matched text is at the beginning of a line or the beginning of a paragraph. For example, the pattern :^fitness\> matches the word fitness at the beginning of a line. A search for :^ on its own moves the insertion point to the beginning of the next line.

#### :s (document start)

A pattern x preceded by :s forms a pattern :sx which matches whatever x matches provided the matched text is at the beginning of the document. A search for :s on its own causes the insertion point to move to the beginning of the document.

#### :e (document end)

A pattern x followed by :e forms a pattern x:e which matches whatever x matches provided that the matched text is at the end of the document. A search for :e on its own causes the insertion point to move to the end of the document.

### **Repeat Metacharacters**

The plus, minus, and asterisk symbols (+ - \*) are used in regular expressions to signal a possible repeating of the previous character or bracketed expression.

### + (1+)

A character, or a parenthesized regular expression, followed by a + is a pattern that matches one or more occurrences of whatever that character or expression matches. For example, the pattern a+ matches any occurrence of one or more a's. When Nisus searches for a+ and finds a sequence like aaaa it will select all four characters, rather than just the first one. A search for \((AB\)) + matches AB, ABAB, or ABABAB. A search for :d+ will find any sequence of digits such as 123 or 13245.

### \* (0+)

An asterisk following a character or a parenthesized expression forms a pattern that matches zero or more occurrences of whatever that character or expression matches. The only difference between the repeat character \* and + is that \* will match no occurrences whereas + must find at least one. For example, the pattern al\*e matches ae as well as ale, alle, allle, and so forth. al+e matches whatever al\*e matches except for the case of zero occurrences of the l, ae, which al+e skips.

A pattern of the form  $x^*$  matches the largest number of occurrences of whatever x matches. For example, using the pattern  $\ (AB\) *$  on the text ABABAB, Nisus does not stop at AB (1 occurrence) or ABAB (2 occurrences) but highlights the largest match ABABAB.

#### - (0 or 1)

The minus sign following a character or a parenthesized expression is a pattern that matches zero or one occurrence of whatever that character or expression matches. For example, al-e matches only ae and ale. Note that the minus inside brackets, as in [a-c] signifies a range.

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```
:-, :+, :*
```

Same as -, +, \*, but matches the shortest text. For example, in searching for the phrase:

```
"Is it," she asked, "because I am so ugly?"
```

the pattern ".:+" (must include the quotes!) would find "Is it," while the pattern ".+" (also including the quotes) would find the entire phrase.

Note that when searching backward, from the selection or insertion point toward the beginning of the document, the shortest sequence of characters is sometimes the one found, whether or not the colon precedes the repeat metacharacters. This results from the fact that the search proceeds in reverse. For example the expression a \((ef\)\*c (a string like aefefefc), when searching in reverse will select the longest match, but if the search expression is \((ef\)\*c and the search is in reverse the match will be efc.

### **Tagging Expressions**

The following is an exact repeat of the corresponding documentation of PowerSearch, modified to use the metacharacters symbols used in PowerSearch+. To enter any of these metacharacters in PowerSearch+ you can use the Find/Replace dialog menus. To make the menus accessible from PowerSearch+, zoom out the dialog to its larger size. PowerSearch+ is more powerful than PowerSearch and so not all possible metacharacters are available in the menus.

Quite often you want to "tag" or mark a part of the Find Pattern in order to use it as part of the remaining Find Pattern or part of the Replacement pattern. The following metacharacters are used for this purpose.

#### Found (&)

The & metacharacter stands for the currently found or selected text. This metacharacter can only be used in the replacement pattern where it means the entire text that was last found, which means the expression which last matched the complete Find Pattern.

The **v** metacharacter can be used to add text to found expressions. For example the following Find Pattern and Replace Pattern will add bullets to the beginning of each paragraph:

Find Pattern: :^.+
Replacement Pattern: •&

You can also use this metacharacter to change the attributes (font, size and styles) of text without altering the text itself. You can also use it to count the number of occurrences of certain words or phrases. To do this, type any text in the Find box and enter  $\mathfrak V$  in the Replace box and then click Replace All. Nisus will replace every occurrence of the found text with itself in effect making no change at all. It will then display in a dialog box how many replacements were made.

Example: A Replace All of Paragon with Found will count how many times the word Paragon appeared in the current document, or all open documents, without making any changes to the documents.

### Parentheses, Tags and \1 through \9

The left \( and right \) backslash parentheses¹ are used to bracket or "tag" an expression (in the Find Pattern only) for the purpose of referring to it later in the remainder of the same Find Pattern or in the Replacement Pattern. They do not change the Find Pattern in any way. That is any regular expression without these parentheses will match the same text as with the parentheses except in the case where you use a repeat pattern metacharacter following the closed parentheses. Each parenthesized expression can be referred to in any following expression with the appropriate one or more of the items:

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<sup>&</sup>lt;sup>1</sup>The backslash is necessary to distinguish these special "tags" from the literal parentheses.

\1 through \9 and \E10 through \E63. Thus \1 is used to represent the text found by the first parenthesized expression. \2 to represent the text found by the second expression and so on.

Example: To convert all the dates of the form mm/dd/yy to international dates of the form dd/mm/yy. Use the Find Pattern:

\(:d:d\)/\(:d:d\)

and replace it with:

\2/\1/\3

This search will replace the date 09/28/88 with 28/09/88

#### Nesting Parenthesized expressions.

When a parenthesized expression occurs inside a parenthesized expression, the numbering count starts from left to right, from the outside in.

**Example**: In the expression (in which we use A,B,C,D,E,F to represent any characters, metacharacters, or expressions):

\(A\(B\(CD\)\)\(EF\)\)

\1 would be whatever matched A, \2 would be whatever matched B, \3 would be whatever matched CD and \4 would be whatever matched EF.

### Using Parentheses to designate repeated patterns

When a parenthesized expression is followed by one of the repeat metacharacters, the resulting regular expression matches a text pattern in which the repeated expression can be any instance of a match for the first expression. This means that the found text need not be the same for each instance of the repeat. Example: The expression "\(a:d\)+" will match any sequence of an alphabetic followed by a digit, as for example in A2D2 or C3P4. However when the parenthesized expression is later followed by "\1", the "\1" expression must match exactly the text to which it refers. For example the expressions:

would match the pattern A2B3A2B3, but would not match A2B3C4D4. Using such parenthesized expressions you can perform many useful searching and replacement operations.

**Example:** Suppose you wanted to find two neighboring paragraphs beginning with the same first alphabetic character. Your Find Pattern would be:



This would highlight both paragraphs.

Example: The Find Pattern:

together with the Replacement Pattern:

\3\2\1

will swap the first two words in a paragraph.

It is important to remember that you must not use any of the ...Found expressions before you have "tagged" or bracketed the appropriate number of prior expressions.

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# **Replacement Patterns**

The most common use of metacharacters and regular expressions is in constructing find patterns. Some are also useful in constructing replacement patterns. If a metacharacter or a regular expression has a unique match then it can be used in constructing replacement patterns. For example, the metacharacter Found (P) matches the last text selected. Because it has a unique meaning it can be used in constructing replacement patterns. The metacharacter (1) in PowerSearch, which matches a return character, can also be used. The metacharacter (0-9), which matches any digit from 0 through 9, cannot be used because it does not have a unique meaning. If a metacharacter is not allowed in a particular context, Nisus will usually not let you select it in PowerSearch. No such restriction applies when using PowerSearch+ where you are left to your own devices and can easily create patterns which do not do what you expect.

- Even in PowerSearch it is easy to create patterns that don't match anything. When this happens you are advised to rebuild your pattern from the beginning, adding only one metacharacter at a time, and checking what is being found or replaced after each such increment.
- Note that Nisus does not have the limitations of "or" in UNIX GREP. In Nisus the "or" can be used anywhere including inside paretheses.

### **Definitions**

### **Character Definitions in Nisus**

Alphabetic Characters ...... Any characters in the range A

through Z and a through z plus all the option and shift option alphabetics. These include all the modified alphabetics which are used in the European languages. These modified alphabetics are referred to as "Diacritical Characters" and are

shown below.

Alphanumeric Characters..... Any alphabetics and the digits 0 through 9 Control Characters..... Any character whose ASCII code ranges are: 0-12, and 14-31. None of them are printable in Helvetica. Diacritical Characters ...... Any character whose ASCII code ranges are: 128-159, 167, 174,175, 190, 191, 203-207, 216 Diacritical in Helvetica..... ÄÅÇÉÑÖÜáàâäãåçéèêëíìï ñóòôöőúùûü߯ØæøÀŌ Œœÿ Gremlins...... Any character whose ASCII code ranges are : 0-8, 10-12, 14-31, 127-255 Gremlins in Helvetica..... ÄÅÇÉÑÖÜáàâäãåçéèêëîîĩiñó òôöõúùûü†°¢£§•¶ß®©™‴≠ÆØ∞  $\pm \le Y_{\mu}\partial \Sigma \Pi \pi \int_{-\infty}^{\infty} \Omega e \theta i \Pi \sqrt{f} \approx \Delta \infty ...$ ΑΑΟŒe—""+ $\delta$ ŸΥ

### **Word Definition in Nisus**

The following characters can be a part of a word under the conditions stated:

- All alphanumerics, diacriticals, non-breaking space (option-space which is ASCII 202);
- \$ provided it is preceded by a non-alphanumeric and followed by a digit or decimal point;
- £ (ASCII 162), %, provided they are followed by a nonalphanumeric and preceded by a digit or decimal point;

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- '(apostrophe), '(smart apostrophe), (hyphen or minus) provided they are surrounded by alphabetics;
- The comma, provided it is surrounded by digits;
- The period (decimal point) provided it is followed by a digit and preceded by a non-alphabetic.

This defines a word for the following purposes:

- Selection by double-clicking
- PowerSearch+, PowerSearch and Spelling Checker searches
- Word count in Get Info... from the File menu.

# **Metacharacter Listing**

### Wild Card

	Any character except return <sup>1</sup>
: (Space)	Any control character
:!	Any Gremlin
:. or :?	Any character including return <sup>1</sup>
:@	Any Gremlin, tab or space but not a return
:A	Any alphabetic or diacritical
:Å	Any alphabetic or diacritical, or underline
a	Any alphabetic. [A-Za-z] <sup>1</sup> or diacritical
🖒 (option a)	Not alphabetic nor diacritical nor underline
:b	Any blank character (space or tab )1
:d or :#	Any digit [0-9] <sup>1</sup>
:	Any lowercase character, [a-z] <sup>1</sup>
:n	Any alphanumeric or underline

<sup>&</sup>lt;sup>1</sup>These metacharacters are defined in Chapter 12, Pattern Matching Using PowerSearch.

:N	Any alphanumeric, diacritical, or underline <sup>1</sup>
:0	Any octal digit, [0-7]
:u	Any uppercase character [A-Z] <sup>1</sup>
:w	Any character which is part of a word
:x or :h	Any hexadecimal digit [0-9a-fA-F]
<b>:~</b>	Not alphanumeric nor diacritical nor underscore
:∂ (option d)	Diacritical or underscore
$\approx$ (option x)	Any whole word
:Î (option D)	Not diacritical nor underscore

### User Defined Wild Card

Let  $\Sigma$  be a set of characters which can include any ASCII codes except the return character (ASCII 13). Let  $\Sigma$ ' be a set of characters which can include all ASCII codes (including the return character).

[Σ]	Any character from the set $\Sigma$
[^∑]	Any character not from the set $\Sigma$
:[Σ']	Any character from the set $\Sigma'$
:[ <b>^</b> Σ']	Any character not from the set $\Sigma'$

# Special<sup>2</sup>

/0	The null character, (Decimal ASCII 0)
\ <b>b</b>	Backspace character (Decimal ASCII 8).
\t	Tab, (Decimal ASCII 9)1

<sup>&</sup>lt;sup>1</sup>These metacharacters are defined in Chapter 12, Pattern Matching Using PowerSearch.

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<sup>&</sup>lt;sup>2</sup>These metacharacters are the only ones translated in the replacement pattern. The others are interpreted literally. The metacharacters which have special meaning in the replacement pattern are: \1..\9 \E10...\E63 & \CC \C0...\C9 \b \r \f \v \r \s \t

SCII
CII
h
:h
in h
n

# Position

٨	Beginning of Paragraph
\$	End of Paragraph
:^	Beginning of Line
:<	Preceding character is:
:>	Following character is:
:S	Beginning of Document
:е	End of Document

<sup>&</sup>lt;sup>1</sup>These metacharacters are defined in Chapter 12, Pattern Matching Using PowerSearch.

<b> </b> <	Beginning of Word
<b>b</b>	End of Word

# Clipboard 1,2,3

/CC	Contents of current Clipboard
\C0\C9	Contents of Clipboard 0 through 9

### Expression<sup>1</sup>

&	Currently selected expression <sup>2,3</sup>
\(\)	Parenthesized expression
\1\9	Parenthesized expression 1 92
\E10\E99	Parenthesized expression 10 99

# **Advanced Examples**

# **Swapping Words**

To swap any two consecutive words even if they are separated by a return, search for  $(\approx)(:[\s\t\r]+)(\approx)$  and replace it with  $3\2\1$ . Thus if this example finds the two words "well dressed" they will be replaced by "dressed well." Here is the explanation:

≈ matches a whole word

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<sup>&</sup>lt;sup>1</sup>These metacharacters are defined in Chapter 12, Pattern Matching Using PowerSearch.

<sup>&</sup>lt;sup>2</sup>These metacharacters are the only ones translated in the replacement pattern. The others are interpreted literally. The metacharacters which have special meaning in the replacement pattern are: \1..\9 \E10...\E63 & \CC \C0...\C9 \b \r \f \v \r \s \t

<sup>&</sup>lt;sup>3</sup>These metacharacters are interpreted literally in the find pattern: \CC \C0...\C9 &

- \(:[\s\t\r]+\) matches any sequence of blank characters such as spaces, tabs, or returns
- = matches another word
- \3 stands for the third parenthesized expression which is the second of the two words found
- \2 matches whatever the second parenthesized expression
   \(:[\s\t\r]+\), matches
- \1 matches the first parenthesized expression which is the first of the two words

### **Finding Duplicate Words**

To find repeated words such as "cat cat" even if they are separated by a return character, search for:

 $\(\approx\):[\s\t\r]+\1\>$ 

- \(≈\) finds the same thing as ≈ represents.
- ≈ matches any whole word. (Type Option-x to get the symbol).
- : [\s\t\r] + matches any sequence of blank characters such as spaces, tabs, or returns.
- \1 matches a repeat of the first word found.
- The metacharacter \> matches the end of a word. This
  metacharacter at the end of the find pattern is necessary to
  eliminate matches such as "for for" in "for form."

Repeated words are also found by the Spelling Checker.

# **Finding Phone Numbers**

To search for phone numbers with or without area codes, search for the pattern:

```
\<\(1\s*\--\s*\)-\((-:d:d:d)-\)-\s*\--
\s*:d:d:d\s*\--\s*:d:d:d:d\>
```

This pattern matches phone numbers in any of these forms:

619 481-1477	4811477	1 - (619) 481 - 1477
(619) - 481 - 1477	481 1477	1 619 - 481 1477
619-481-1477	481-1477	1-619-481-1477

- \(1\s\*\--\s\*\) matches zero or one occurrence of whatever 1\s\*\--\s\*\ matches.
- 1\s\* matches a 1 followed by any number of spaces including none.
- \--\s\* matches a minus (-) followed by a zero or more spaces.
- \((-:d:d:d)-\) matches one or no occurrence of whatever (-:d:d:d) - matches.
- (- matches one or no occurrence of (.
- :d:d:d matches a sequence of three digits.) matches zero or one occurrence of ).
- \s\*\--\s\*:d:d:d matches any number of spaces followed by a minus or no minus, followed by any number of spaces, followed by a sequence of three digits.
- \s\*\--\s\*:d:d:d:d matches any number of spaces followed by a minus or no minus, followed by any number of spaces, followed by a sequence of four digits.

# **Changing to International Dates**

To search for all dates in the following forms:

08/16/88 8/16/88 08/16/1988

and replace them with:

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respectively, search for:

and replace it with:

\2/\1/\3

- The first sub-pattern \ (:d:d-\) matches the month. The matched month is remembered as \1.
- / matches a literal forward slash.
- The second sub-pattern \(:d:d-\) matches the day. The matched day is remembered as \2.
- \(:d:d\(:d:d\)-\) matches the year in either two digit or four digit format. Note that the text matched by the outer parenthesized expression is remembered as \3 and the text matched by the inner one is remembered as \4.
- \2/\1/\3 replaces month/day/yr with day/month/yr.

See Chapter 20 in *Algorithms*, by Robert Sedgewick (Addison Wesley, 1983), for a theoretical discussion of Regular Expressions.

# **Useful Regular Expressions**

The following are some regular expressions both as examples of useful regular expressions and as the beginning of a library of regular expressions that you can refer to without re-inventing one every time you need it. Other useful regular expressions are contained in the example macros supplied with Nisus.

expression	Matches	
:<([^(]:+:>)	any text between parentheses.	
:<[""].:+:>[""]	any text in between quotes.	

^\<:a:+\> any alphabetic word at the beginning of a paragraph.

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The regular

\(~\):[\s\r\t]+\1 any two consecutive duplicate "words" which need not be alphabetic and can be separated by a return. \(1\s\*\--\s\*\)-\((-:d:d:d)-\)-\s\*\--\s\* :d:d:d\s\*\--\s\*:d:d:d:d any phone number including area code. \(:b\)\1+ two or more spaces or tabs in a row. You can remove the extra blank characters by using the replacement pattern  $\1$ :b+\$ any number of spaces\tabs in a row at the end of a paragraph. You can remove trailing blanks at the end of a paragraph by using nothing for the replacement pattern. the beginning of a non-empty paragraph. ^:>[^\r] \([""]\)\([.,]\) matches a quotation mark followed by a period or a comma. Conventionally the comma and the period are always enclosed within quotation marks. You can swap these punctuation marks and the quotation mark by using the replacement pattern \2\1. \([\:;]\)\([""]\) colon and semicolon are never enclosed

matches a semicolon or a colon followed by a quotation mark. Conventionally the within quotation marks. You can swap these punctuation marks and the quotation mark by using the replacement pattern \2\1.

Any trailing blanks before a period.

Beginning of a "wrapped" line (soft

return) (or:^:<[^\r]).

:b+\.

:^:<\s

# 14 Working with Macros

# Introduction

To automate repetitive or long and tedious tasks, Nisus can create a single menu command which performs the equivalent of a sequence of key strokes, menu selections and calculations. Such a group of commands is called a Macro. Macros can be recorded, typed, and edited.

A Nisus macro consists of a sequence of instructions which Nisus is to execute: menu commands to be executed, calculations to be performed, keys to be typed, or mouse clicks to be done. These instructions and the rules which govern them form a language which we call the Nisus Word Processing Language. It is an extremely powerful language allowing you to build-in custom features which can make some things practical that used to be impractical, or simply save you a great deal of time.

For example, if you regularly receive unformatted text files which you have to format in a certain standard way, you can create a macro which will perform the formatting completely automatically. The macro becomes a command in the Macros submenu of the Tools menu and all you have to do to make it work is choose it and watch the performance. Certain special macros can also be made to execute automatically when certain events occur.

For example, you can have a macro execute when you first start up Nisus, when you open a new file, when you open any existing file, or even when you double-click while holding down a modifier key. These features allow you a great deal of flexibility in customizing Nisus and automating many tasks.

The power of the Nisus Word Processing Language is divided into two dialects: The Menu Command Dialect, described in this chapter, and the Programming Dialect described in a separate pamphlet titled Macro Language: Programming Dialect. The Menu Command Dialect is recommended for all users of Nisus. The Programming Dialect is recommended only for those who want to learn programming, or those who have become so familiar with the Menu Command language that they want to go beyond its limitations. The programming Dialect is a full procedural language which can also, incidentally, be used to teach elementary programming in the context of a word processing document.

Paragon Concepts offers a macro writing service for those who need custom features but do not have the time to learn how to do it themselves. For more information you are invited to call our general number and ask for details of the Macro Programming Service.

To create a macro you either type the instructions into a special macro file window or you turn on the macro recorder and perform the actions you want repeated. You then name the macro and save the macro with the usual **Save** menu command. Once written, macros are available as menu commands by the names you gave them, just like the standard features.

The Menu Command Language, as the name implies, consists of all the menu commands. Type a menu command on a line in a macro file, and when you execute the macro, its effect will be the same as if you had selected the menu command. This is the fundamental principle on which the Menu Command Language is based. To extend their capabilities in a macro, some menu commands also understand "parameters." These parameters are explained later in this chapter.

To help you write your own macros, several example macros are supplied with Nisus. They range from a simple macro which removes unwanted characters from a document to one that creates a list of all unique words, or one which automatically numbers figures.

To fully explore the power of macros, read more about the underlying text description language PowerSearch+ in Chapter 13.

Macros can be recorded through Nisus' macro recording facility or the text of the macro can be typed in directly. The text of a macro is a sequence of instructions, each instruction from one of two Nisus Macro Language dialects: the Menu Command Dialect and the Programming Dialect. The recording facility only creates instructions in the Menu Command Dialect.

The Nisus Menu Command Dialect is very powerful; however, it has certain limitations, most of which are not serious drawbacks. For example, although there is no "if...then..." (conditional) instruction in the Menu Command Dialect, by using PowerSearch+ you can usually avoid the need for conditionals. Simple looping is supported, and macros may call other macros; a macro may even call itself. Nisus cannot record dragging, but by using keyboard commands, which are recorded, text can be selected. You will find "if... then..." conditionals in the Programming Dialect. See the separate Nisus Macro Language: Programming Dialect pamphlet for details on how to use these expressions.

Macros have the power to prompt the user for input or use the Clipboards as variables, and they may even create other macros or modify themselves.

NOTE: The Programming Dialect commands are not available unless the file "Nisus Programming Dialect" is in the same folder as Nisus at the time of start up.

# Setting up a Macro File

Macro files are Nisus documents with a distinctive icon load a macro file as you load any glossary, dictionary, or thesaurus document, by using the **Open...** command or double-clicking on its name in the Catalog or Open File dialog. Loading the macro file does not bring up the macro window for editing.

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To open the macro window for editing use the **Edit Macro...** command in the **Macros** submenu of the **Tools** menu. There can only be one macro file loaded at a time. If you load another macro file, Nisus unloads the currently loaded one. Each macro file may contain any number of individual macros. The macros contained in the current macro file appear at the bottom of the **Macros** submenu of the **Tools** menu as menu commands.

When you open the macro file for editing you see that it is just like a normal document except that it has a black Title Bar and special breaks between individual macros. Zoom the macro file to full size by double-clicking on its Title Bar. The macros in that file are separated from one another by a macro break, just like page breaks in regular documents. On the left side of the macro file, the macro names are listed alphabetically. On the right of each macro name the macro instructions are listed, one per line as illustrated in Figure 14-1.

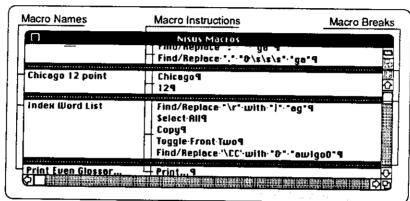


Figure 14-1 Nisus Macro file

### **Auto Load Macros**

When Nisus starts up, it looks for a file called Nisus Macros in the same folder as Nisus, and if that's not found, in the System Folder. If the file is found in either folder, it is automatically loaded. No file called Nisus Macros is shipped. However you can choose from any of the macro files shipped with Nisus, or create a new one, and rename it Nisus Macros.

The explanations of the shipped macros can be found in your Nisus Macro Language: Programming Dialect pamphlet and by checking the comments in the macro file itself. By pressing Option while selecting a particular macro, the macro file is opened for editing and you are placed at the text of the selected macro where you can read the comments.

### **Loading Other Macro Files**

Using either the **Open** or the **Catalog...** commands from the **File** menu you can load any macro file using the same commands as you do when you open Nisus documents. See Chapter 4: Working with Text and Documents for more details on how to open Nisus documents.

Nisus uses only one macro file at a time. When a macro file is loaded, it becomes resident in memory. The macros of the current macro file become available in the Macros submenu of the Tools menu as menu commands. If you try to load a new macro file and the current one has unsaved changes, Nisus will display a dialog asking if you want to save the current file before loading the new one. If you quit Nisus and the macro file has unsaved changes, Nisus displays a similar dialog.

### **Creating a New Macro File**

When you choose **New Macro File** from the **Macros** submenu of the **Tools** menu, Nisus opens an untitled macro file. If the current macro file has unsaved changes, Nisus will display a dialog asking if you wish to save it before creating a new one. The untitled macro file becomes the current macro file and any new macros created are stored in this file. When you quit Nisus, you are asked to save the macro file and give it a name.

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# **Recording Macros**

Before recording a new macro, close the macro window and open a new document. To record a macro, choose **Record Macro** from the **Macros** submenu of the **Tools** menu. When the **Tools** menu begins flashing, perform the actions you wish to record. When you are finished choose **Stop Recording...** (the command which is shown in place of **Record Macro** during recording).

### What Gets Recorded

When recording is on, the following actions are recorded:

- · Menu commands
- · Keyboard commands
- Typing
- Mouse clicks

It is important to note that although single mouse clicks such as clicking a button or a check box are recorded, mouse movements such as "click and drag" are not<sup>1</sup>. (Double-clicks, triple clicks and multiple are recorded.) Nisus, however, provides extensive keyboard editing facilities which simulate most of the mouse movements. To record text selection using the keyboard read Useful Editing Commands section in this chapter, page 429, or refer to the Quick Reference Guide.

Note that Nisus does not record pop-up menu commands. You can however assign Command key equivalents to most pop-up menu commands and you can record the action of these Command key equivalents instead. This means that you cannot record the selection of a named ruler from the rulers menu, but you can record the selection of a user style from the styles menu. If you need to use a named ruler in a recording, you will need to add the ruler you want to a style and use that instead.

<sup>&</sup>lt;sup>1</sup>Actually the contact of the mouse button when it is pressed down is recorded but not when it is released.

Nisus records the actual Command keys. If you record a macro using one set of key command assignments and then change the key assignment used by the macro then the macro will no longer perform as before.

### Stop Recording

Choosing **Stop Recording** brings up the Macro Name dialog illustrated in Figure 14-2.

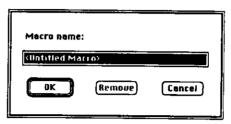


Figure 14-2 Macro Name Dialog

The default name of the macro is **(Untitled Macro)**. It is selected so that all you need to do is type in the name of the macro and click **OK**. Choose a brief name that identifies this macro uniquely.

Nisus will then display the current macro file and place the insertion point at the end of the recorded macro instructions. Edit these instructions if necessary. The macro names are listed alphabetically and appear at the bottom of the Macros submenu of the Tools menu.

The macro file does not get saved until you quit Nisus (and confirm the save) or until you explicitly save it. Read the Saving Macros section in page 400 in this chapter.

<sup>&</sup>lt;sup>1</sup>Using the same **Save** command as for document files.

### **How Macros get Recorded**

When you record a macro, text is used to describe instructions. This text is placed in the macro file. After the recording is stopped and you give the macro a name, you can edit this recorded text.

### Recording Menu Commands

When you choose a command from the menu bar, Nisus places the name of the command on a separate line. For example, if you choose **Select All** from the **Edit** menu and then choose **Chicago** from the **Font** menu, Nisus records the following instructions:

```
Select All
Chicago
```

### Recording Keyboard Entries

When any text is typed or when you press Return, Nisus inserts the word *Key* followed by a space. It then inserts the typed text. For example, if you type the following address:

```
Paragon Concepts, Inc.
990 Highland Dr.
Solana Beach CA 92075
```

Nisus records the following macro instructions:

```
Key Paragon Concepts, Inc.
Key
Key 990 Highland Dr.
Key
Key Solana Beach CA 92075
Key
```

If you make a mistake in typing while recording a macro, DO NOT TRY TO CORRECT IT—do not even press the Backspace or Delete key. Leave all corrections until you have finished recording, otherwise the backspace character is inserted in the macro text whenever you type the Backspace key.

### **Recording Clicks**

When you record a click, Nisus inserts the word "Click" followed by a space and then two coordinates separated by a comma. The first coordinate represents the horizontal position relative to the left (or right) side of the window. The second coordinate represents the vertical position relative to the bottom (or top) of the window. These coordinates represent the location of the click relative to an origin in the active window. If the two coordinates are both numeric then the numbers are relative to the top left of the window. If the first coordinate is a number that is preceded by the letter R it is relative to the right side of the window. If the second coordinate is a number preceded by the letter R, it is relative to the bottom edge of the window. All coordinates are relative to the front-most window. If no window is open, then the coordinates are relative to the screen. Here are some sample click instructions:

Macro Command	Explanation
Click 23, 23	relative to top left corner
Click R-8, 9	relative to top right corner
Click 8, B-38	relative to bottom left corner
Click R-8, B-38	relative to bottom right corner

The negative numbers signify that the distance is to the left or up from the reference boundary. The coordinates are measured in terms of screen pixels.

Usually you do not need to be concerned with these details because the recording is done for you. The above explanations may be helpful in the event you want to make slight adjustments to a recorded macro.

### Recording Modifier and Arrows Keys

The Command, Shift,, Control, and Option Keys are called modifier keys. They do not get recorded on their own but only when pressed with another key or when a menu command is chosen. In that event Nisus, uses the clover symbol & (ASCII 17) for Command, the arrow symbol & (ASCII 19) for Shift, and the symbol & (ASCII 20) for Option. (The Control modifier is not currently recorded. Control together with another key enters control characters.) These symbols are only visible on the screen in the <code>Any Font</code> font. In other fonts, these symbols appear as small open rectangles or other symbols, but still perform their function. When you press the arrow keys Nisus records their ASCII equivalent. Each time the Backspace key is pressed Nisus records a backspace character (ASCII 8) which displays as a reverse arrow with a double stem \(\infty\). Arrow keys appear in the macro window as arrows with single stems: \(\infty\) \(\infty\).

When recording keystrokes, the Option, Command or Shift modifier character appears before the key that is recorded, but after the macro command word "Key". When recording menu commands or mouse clicks, the modifier key symbol appears before the menu command name or before the macro command word "Click".

For example if you hold down Shift while choosing **Cut** and then type Command-v, Command-Backspace, Nisus records the following macro instructions:

Cut
Key %v%←

Macro recording is most often used for actions which include the modifier symbols such as Command or Option or mouse clicks. You can also type the macro instructions directly in the macro file. Read the section Typing Macros, page 401 in this chapter for more details.

The macro recorder will not record the typing of Function keys.

### **Examples**

### **Swapping Characters**

If you are a fast typist, or a clumsy one, or perhaps have a touch of typing dyslexia, you may catch yourself transposing the position of some characters. It would be useful to have a command which swaps the positions of two characters. Record the following actions:

- 1. Place the insertion point to the left of any two characters you wish to swap.
- 2. Turn on the macro recorder by choosing Record.
- 3. Press Command-Shift-Space to select the character to the right of the insertion point.
- 4. Press Command-x to cut the character selected.
- 5. Press Command-Space to move the insertion point one character to the right.
- 6. Press Command-v to paste the character cut.
- 7. Choose Stop Recording... from the Macros submenu.
- 8. When the Macro Name dialog appears type Swap Char and press Return or click OK. The current macro file is displayed with the following macro instruction:

Save and close the file.

The new macro **Swap Char** now appears in alphabetical order at the bottom of the **Macros** submenu of the **Tools** menu. Choose it and watch how the two characters to the right of your insertion point are swapped. Read Assigning Command Keys to Menu Commands, page 452 in Customizing Nisus, to learn how to assign a Command key equivalent to a menu command. This allows you to choose menu commands without using the mouse.

### A Macro as a Glossary

Nisus has a special glossary feature available, however you can, if you wish, use a macro instead. You can record a macro of frequently used text such as an address. Here is an example:

- 1. Choose Record Macro from the Macros submenu.
- Start by typing your name, address or any other text that you use frequently. If you make a mistake, do not try to correct it. Leave all corrections until you have finished recording.
- 3. Choose Stop Recording from the Macros submenu.
- 4. When the Macro Name dialog is displayed, type My address and press Return or click OK.

You should see something similar to this:

```
Key Jane Elizabeth Doe
Key
Key 1412 Shady Lane
Key
Key Upper Rocktown, MA 02120
```

- 5. Correct any mistakes.
- 6. Choose Save from the File menu and close the file.

You can now choose My address from the Macros submenu of the Tools menu and the address will be pasted at the insertion point.

# **Executing Macros**

To play back or execute a macro, choose its name from the Macros submenu of the Tools menu or press the Command key equivalent you assigned to it. See Assigning Command Keys to Menu Commands, page 452 in Chapter 15: Customizing Nisus.

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### Interrupting a Macro

If you want to stop a macro before it has finished executing, hold down the Command and period keys simultaneously (%.) until Nisus displays the message *Process aborted by user*. You can then either click Continue MACRO to continue or Stop MACRO to abort the macro.

# **Undoing a Macro**

Any macro, even the most complicated one, can be undone with a single undo. This is because all the actions of a macro are combined into a single undo command.

When you abort a macro in the middle of execution, then as you might expect, Nisus will leave its task only partly completed. So if you want to undo the partially completed changes, choose **Undo** from the **Edit** menu. Note, however, that undoing a macro will not undo operations that are not undoable elsewhere in Nisus, such as closing or saving a file.

# **Editing Macros**

When you choose **Edit Macro...** from the **Macros** submenu of the **Tools** menu you can perform any of the following:

- · Edit existing macros
- Single step through a macro
- Rename macros
- Delete macros
- · Type new macros
- Save macros
- · Copy macros

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### **Editing Existing Macros**

To edit an existing macro:

- 1. Choose **Edit Macro...** to open the current macro file.
- 2. Scroll to locate the macro you wish to edit. Macro names are listed alphabetically.
- 3. Click in the macro instructions area and start editing.
- A quicker way to activate the current macro file and edit an existing macro is to hold down Option and choose the macro you wish to edit from the Macros submenu of the Tools menu. This scrolls the macro into view, and places the insertion point to the left of the first macro instruction.
- You can test each macro instruction by selecting the line with that instruction and then choosing **Execute Selection** from the **Macros** submenu.

### Testing a Macro

To allow for quick testing of a macro, Nisus can immediately execute selected text which appears in any document as if it were a macro. For example:

- Type the following text into your document: New "My document"
- 2. Select this text.
- 3. Choose Execute Selection from the Macros submenu.

Nisus interprets and then executes the selected text as a macro. In this example a new document named *My document* is created. The macro text does not need a name and does not get listed with the other macros in the **Tools** menu. To add it to the macro file, copy the macro text, create a new macro, and then paste it and save it.

When you choose **Execute Selection**, Nisus moves the front window (the one in which you selected the macro text) to the back, behind all other windows. The next window becomes the active

window and the one affected by the macro. If a new document is created by a macro, it becomes the active window.

# **Renaming Macros**

- To rename a macro:
  - 1. Choose Edit Macro... to activate the current macro file.
  - 2. Double-click the macro name you want to change.
  - 3. Type the new name and press Return or click Name
  - 4. Choose Save from the File menu.

# **Deleting Macros**

To delete a macro:

- 1. Choose Edit Macro... to activate the current macro file.
- 2. Double-click the macro name you want to delete.
- 3. Click Delete macro

WARNING: You can undo the deletion of a macro until the time that you close the macro window. If you close the macro window the commands in the undo list associated with that window are lost. See Undo Command, Chapter 4: Working with Text and Documents, page 79, for more details on the undo list.

Even if you have removed a macro and have closed the macro window, you can still recover the previously saved macro file provided you have not saved the file after deletion. Do the following:

- 1. Choose **Edit Macro...** from **Macros** submenu of the **Tools** menu to open the Macro window.
- 2. Choose Revert To Saved from the File menu.

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### **Saving Macros**

Each created macro is added to the current macro file. To save a changed or newly created macro file, choose **Save** from the **File** menu when the macro window is the front window. When a macro file is saved all the macros associated with it are also saved. If you want to save the current macro file under a different name, then choose **Edit Macro...** to activate the current macro file, and then choose **Save As...**. Note that if you change a macro file and do not explicitly save it, Nisus asks you whether you want to save it at the time you quit the program, or try to load another macro file.

# **Copying Macros**

In Nisus you can export or import macros from one macro file to another.

- 1. Choose **Edit Macro...** from **Macros** submenu of the **Tools** menu to open the window of the current macro file.
- 2. Scroll to locate the macro you wish to copy.
- 3. Copy the macro instructions in the usual Macintosh fashion. Be sure to include the return character that is before the macro name. (The highlighted section should be the black space at the end of the preceding macro through the end of the text of the macro to be copied.)
- 4. Load another macro file by using the **Open...**command in the **File** menu or using the Catalog.
- 5. Choose Edit Macro....
- 6. Set the insertion point at the end of the last macro instruction in the file.
- 7. Press Return.
- 8. Choose Paste from the Edit menu.
- 9. Choose Save from the File menu.

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### **Creating New Macros**

To create a new macro:

- 1. Choose New Macro... from the Macros submenu.
- 2. When the Macro Name dialog appears type a name and click Name or press Return.

When the macro file is open, Nisus is ready for you to type in a sequence of instructions.

You should not confuse the New Macro... command with the New File... command. As the name suggests, choosing New File unloads the current macro file and creates a new macro file. New Macro, on the other hand, allows you to add another macro to the existing macro file.

# **Typing Macros**

Each macro consists of a sequence of menu commands that adheres to a prescribed format. The set of all possible macro commands forms the Nisus Word Processing Language. Learning this language makes it possible to modify existing macros and even write new macros of your own. If you wish to write macros using the full capability of Nisus, it is important to know the language structure (syntax) in detail. This section explains how to type simple macro instructions. The syntax of the macro language is explained in full detail in the section Menu Command Dialect: Syntax and Arguments, page 405.

#### Typing Menu Commands

To include a menu command in your macro, type the name of the command on a separate line, then press Return. The ellipsis which follow some menu command names (for example, **Open...**) need not be included. Make sure to spell the command name *exactly* as it appears on the menu. You do not need to be precise about using upper or lower case characters because Nisus ignores them. If a menu command is in a hierarchical menu, only the command of the submenu

needs to be used. The following macro instructions capitalize the initial letter of every word in a selection no matter what the case of the characters is at the outset:

lowercase Capitalize

In a similar fashion, you may access the ruler commands using the instructions listed in the following table:

Line	Paragraph	Paragraph
Height	Spacing	Justification
L 1 L 1.5 L 2 L 3 L Other	¶ 1 ¶ 1.5 ¶ 2 ¶ 3 ¶ Other	Left Center Right Full

Table 14-1 Other menus accessible with macro commands

"L Other" and "¶ Other" move the insertion point into the line spacing and ¶ spacing text editing boxes on the Master Ruler. To type a paragraph marker (¶) press Option 7¹.

There are additional menus that appear on the far right of the menu bar immediately after choosing a certain command. When you choose Find/Replace from the Tools menu, the Search Method menu appears. When you choose Layout Page... from the File menu, the Layout menu appears. At other times these menus are hidden. In order to access the menu commands of these additional menus, you first need to show the menus. For example, to choose the Set Columns... command from the Layout menu, use the following macro instructions:

<sup>&</sup>lt;sup>1</sup>Although these menu commands are not on the normal menus, they are accessible in a macro. You can see them also on the menus when you assign Menu Keys.

Layout Page...
Set Columns...

There are some exceptions to this rule. Among them are pop-up menus that appear on some dialogs, such as the **Normal Search** pop-up on the Find/Replace dialog: a macro can change this to **PowerSearch** without bringing up the Find/Replace dialog. Other examples are the ruler commands shown in Table 14-1 which are available whether or not the Master Ruler is showing.

Menu commands sometimes have the same name but belong to different menus. This can only happen if you create menu commands (macros, markers) which conflict with the standard commands (or with other macros, markers, etc.). In a macro, precede the command by the menu name followed by a colon in order to resolve conflicts. For example, Font: Any Font

Note: When in a macro you use a command that does not exist, Nisus informs you of the line in error and lets you choose either to stop the macro or continue.

### Typing Keyboard Entries

To include keyboard entries type the word *Key* followed by a space and then type the text you wish the macro to insert when it plays back. The text must not include a return character. To record a return character type the word Key followed by a space. To write a macro, which when executed, displays the following text:

"Are you," she asked, "the man who helped me?"
"Yes," he said, "I was the one."

(which includes a return between the two lines and one at the end of the second line) include the following macro instructions:

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```
Key "Are you," she asked, "the man who helped me?"
Key
Key "Yes," he said, "I was the one."
Key
```

These are the same instructions that would be created if you recorded the keystrokes.

### Typing Mouse Click Instructions

It is easier to record a macro that performs all the mouse clicks and arrow movements than to work out what you have to type. Record the click and key strokes into a temporary macro, and then copy the required lines into the macro you are writing.

### Typing Special Symbols

Nisus uses special symbols to record the modifier keys, arrow keys, backspace, and so on. To enter these symbols in your macro file you have to choose **ASCII Table...** from the **Edit Tools** submenu of the **Tools** menu. See The ASCII Table in Chapter 11: Special Tools, page 329 for more details. Some of the most commonly used symbols in macros are illustrated in Table 14-2.

Symbol	<u>Hex</u>	Dec	Key Pressed
<b>=</b>	08	008	Backspace
*	11	017	Command
<u> </u>	13	019	Shift
8	14	020	Option
<b>+</b> -	1C	028	Left arrow
+	1D	029	Right arrow
<b>↑</b>	1E	030	Up arrow
+	1F	031	Down arrow

Table 14-2 Common Symbols in Macros

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Some of these characters display as open rectangles ( ) and others as diamonds and the Apple symbol, when they are in some specific font rather than the special internal Nisus font called "Any Font". This special font is only available in the Clipboard, in the Macro window and in the Find/Replace dialog. The Paste command pastes characters in the Any Font so that they assume the surrounding font, size and style. Thus if you try pasting these characters into your document, they will assume the font, size and style of the surrounding text and will not display as shown in their original windows.

# Menu Command Dialect: Syntax and Arguments

Macro instructions make up a very simple program. Placing a menu command name on a line in a macro is equivalent to choosing it from the menu. Some menu commands bring up dialog boxes which normally need entries from the keyboard or mouse clicks to check the various check boxes or buttons. When you choose <code>Find/Replace...</code> from the <code>Tools</code> menu, the <code>Find/Replace</code> dialog appears on the screen. You would normally type the find pattern in the Find box, click in the Replace box and type the replacement pattern. When you are recording a macro, click in the Find box, then press the Tab key to move to the Replace box (pressing the Tab key once more will return the insertion point to the Find box, selecting what had been entered there). Then, you would check some search options and finally click the <code>Find</code> or <code>Replace</code> button to start the search or replace. You can record a simple macro which finds the word the and replaces it with that.

- 1. Open a new file and type "the" one or more times.
- 2. Choose **Record** from the **Macros** submenu of the **Tools** menu.
- 3. Choose Find/Replace... from the Tools menu.
- 4. Type the in the Find box.
- 5. Press the Tab key to move your insertion point to the Replace box.
- 6. Type that in the Replace box.
  - 7. Press the Command key and type 6.

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- 8. When the dialog appears, press the Return key.
- Press the Command key and type W to close the Find/Replace dialog.

You would get the following macro instructions:

Find/Replace...¶ Key·the→ that%6¶ Key·¶ Key·жШ¶

Warning: If you click in the Replace box, rather than use the Tab key, the mouse position will be recorded and the word "that" will be appended to the Replace box each time this macro is executed.

Although this macro when played back, performs as expected, you can accomplish the same task by typing the single instruction:

### Find/Replace. "the "·with: "that "·using. "ia"

The expressions in quotes, immediately following a menu command, are called *arguments*. They are used in place of mouse clicks or keyboard entries. This allows macros to execute faster and makes them easier to type and understand. Arguments can specify what text to search for, what text to replace it with, the state of various search options, what text to copy, what text to paste, and so on (this version of the macro will not bring up any dialogs).

In the example above, the various arguments are as follows:

• the Find argument Find "the".

• the Replace argument Replace it with "that".

Ignore Case) and "a" (meaning Replace All).

The meaning of the arguments depends on the particular command. Text between each argument is ignored, so with and using in the instruction above could have been left out or replaced with something else, and the meaning of that instruction would not have changed.

Note however that at least one space is required between the arguments.

Macro arguments are enclosed in plain quotes "..." rather than smart quotes "...". They may also be enclosed in single quotes, but will behave differently. This difference is described later in the section Single Quoted Arguments, page 423.

The following section defines the syntax of those macro commands which can be used with arguments.

### File Menu Commands

The following File menu commands may take arguments when executed from a macro, New, Open..., Catalog..., Save As..., and Transfer....

#### New

#### Syntax:

- New
- New "Pathname:Filename"
- New "Pathname: Filename" "Pathname: Stationery"
- New ":Foldername:Filename"

#### New

If the Start Up preference is set to name new files as untitled, then this instruction creates an untitled document, otherwise it brings up the New File dialog.

New "Pathname:Filename"

This instruction creates a new document named Filename. Pathname is the path to where the document is to be located on disk. To specify a path name, start with the disk name. Follow the disk name by a colon (:), follow this by the name of the first level folder. Follow the folder name by a colon, then the name of the second level folder and so on. Do this level by level until you reach the name of the file you wish to create. Thus, New "My Notes", creates a new document called

My Notes and places it in the current folder. New "Disk 1: My Folder: My Notes" creates a document called My Notes and puts it in the folder My Folder on the disk called Disk 1.

New "Pathname: Filename" "Pathname: Stationeryname"

This instruction creates and names a new document with the specified path name and file name. The stationery file is used as a template. Thus:

New "HD:Folder1:Notes" "HD:template"

creates a new document named *Notes* and places it in *Folder1* on the hard disk *HD*. The stationery file *template* is used as a template.

New ":Foldername:Filename"

This instruction creates a new file and names it *Filename* and places it in the folder *Foldername* in the current folder. If the folder "Foldername" does not exist, it is created.

### Open/Catalog

#### Syntax:

- Open
- Catalog
- Open "Pathname:Filename"
- Catalog "Pathname:Filename"
- Open "Pathname:Filename" "A"
- Catalog "Pathname:Filename" "A"
- Open "Pathname:Filename" "R"
- Catalog "Pathname:Filename" "R"
- Open "Pathname:Foldername" "C"
- Catalog "Pathname:Foldername:" "C"
- Open "Foldername" "C"
- Catalog "Foldername" "C"
- Open ":Foldername:" "C"
- · Catalog ":Foldername:" "C"

Catalog

Open

The Catalog instruction brings up the Catalog Window and the Open instruction brings up the Open File dialog.

Open "Pathname:Filename"

Catalog "Pathname:Filename"

The Open and Catalog instructions with arguments are synonymous. Filename, is the name of the document to be opened. If Pathname is omitted, the document is assumed to be in the current folder. If Nisus does not find this document, it displays a message that the file has not been found and asks you whether you wish to continue or stop the macro. If the document is already open but not active it is brought to the front.

Open "Pathname:Filename" "A"

Catalog "Pathname:Filename" "A"

If the second argument is A (for add) the document is not opened but instead it is added to the search list. For more details on multi-document search, see the section Searching Multiple Documents, page 409 in Chapter 5: Finding and Replacing Text. Thus the macro instruction, Open "My Notes" "A", adds the file called My Notes, which must be in the current folder, to the search list.

Open "Pathname:Filename" "R"

Catalog "Pathname:Filename" "R"

If the second argument is R (for remove) the file is removed from the search list. Thus, the macro instruction, Open "My Notes" "R", removes this file from the search list.

Open "Pathname:Foldername" "C"
Catalog "Pathname:Foldername" "C"

This instruction opens the specified folder name. The "C" argument is short for *Change folder*. The instruction reads: *Open the quoted folder*. If the folder (folder) does not exist Nisus beeps and displays a message that it cannot open such a folder (volume) and that no such volume exists.

Open "Foldername" "C"
Catalog "Foldername" "C"

This instruction opens Foldername if it is in the current folder. If Foldername does not exist, Nisus beeps and displays a message that no such volume exists.

Open ":Foldername:" "C"
Catalog ":Foldername:" "C"

The colon must precede and follow *Foldername*. This instruction opens *Foldername* if it is in the current folder. However, if *Foldername* does not exist, it is created, placed in the current folder, and opened.

The special instruction Open "::" "C" moves the current folder up to the next folder up in the hierarchy. You can create a subfolder to the current folder with Open": New Folder: " "C"

#### Save As

#### Syntax:

- Save As
- Save As "Pathname: Filename"

#### Save As

This instruction brings up the standard Save File dialog.

Save As "Pathname:Filename"

This instruction saves the current document under the name *Filename*. If a path name is specified then it saves the document in the specified folder.

#### Transfer

#### Syntax:

- Transfer
- Transfer "Pathname: Application"
- Transfer "Pathname: Application"

#### Transfer

This instruction brings up the Transfer window which is the Catalog window with only the applications shown.

Transfer "Pathname: Application"

This instruction quits Nisus (under MultiFinder it leaves it resident) and transfers you to the application specified. If a path name is not included, the application is assumed to be in the current folder. When this instruction is used, it should be the last one in a macro. If you are not in MultiFinder, any instructions following it are not executed because the effect of Transfer is to terminate Nisus and thus the macro.

**☆**Transfer "Pathname: Application"

When in MultiFinder, this causes Nisus to quit before launching the other application. When not in MultiFinder, this causes a normal launch (quitting Nisus) but the other application will return to Nisus (rather than the Finder) when it is quit.

### **Edit Menu Commands**

The following **Edit** menu commands may take arguments when used in macros: **Cut**, **Copy**, and **Paste**. The argument "n" refers to clipboard number. It places whatever is cut or copied onto the designated clipboard. In a paste operation it would paste whatever is on the designated clipboard.

#### Cut

Syntax:

- Cut
- Cut "n"
- 分 Cut
- 1 Cut "n"

Cut -

This instruction cuts the selection and places it in the current clipboard.

Cut "n"

If the argument n is present then the resulting instruction cuts the selection and places it in Clipboard n. The argument n may be any whole number from 0 through 9. Thus, Cut "5", cuts the selection and places it in Clipboard 5, replacing whatever was in that clipboard.

Cut

1 Cut "n"

If the Shift symbol  $\Omega$  precedes Cut, the text cut is appended to the contents of the designated clipboard.

#### Copy

#### Syntax:

- Copy
- Copy "n" "Text"Copy "" "Text"Copy "n"

- **1** Copy
- 分 Copy "n" "Text"
- **1** Copy "" "Text"
- **1** Copy "n"

#### Copy

This instruction copies the selection to the current clipboard.

Copy "n" "Text"

The argument n is, as in Cut, the clipboard number. Text is any sequence of characters (not including return characters) to be copied. Thus the macro instruction, Copy "2" "Paragon", places the word Paragon in Clipboard 2.

Copy "" "Text"

If n is omitted, as in, Copy "" "Paragon", the word Paragon is copied onto the current clipboard.

#### Copy "n"

If *Text* is omitted, as in, Copy "3", the selected text is copied onto Clipboard 3.

## ☞ 分 Copy 分 Copy "n" "Text" → 分 Copy "" "Text" 分 Copy "n"

If you precede Copy with the Shift symbol  $\Omega$  the resulting instruction appends the copied text to the designated clipboard.

There are other ways you can use the **Copy** instruction. See Single Quoted Arguments, page 423 in this chapter for more details.

#### Paste

#### Syntax:

- Paste
- Paste "n"
- Paste "" "Text"
- Paste "n" "Text"
- 1 Paste
- 1 Paste "n"
- **☆** Paste "" "Text"

#### Paste

This instruction replaces the selection with the contents of the current clipboard.

#### Paste "n"

This instruction replaces the selection with the contents of Clipboard n. Thus, Paste "3" replaces the selection with the contents of Clipboard 3.

Text is the text to be pasted. Thus, Paste "" "Paragon", replaces the selected text with Paragon.

Paste "n" "Text"

This instruction copies the selection to Clipboard n and *Text* replaces the selection.

#### Paste

If the Shift symbol  $\widehat{\mathbf{v}}$  precedes **Paste**, the resulting instruction swaps the selection with the contents of the clipboard.

Paste "n"

This instruction swaps the selected text with the contents of Clipboard  $\mathbf{n}$ .

This instruction copies the selected text to the current clipboard and then replaces the selection with *Text*.

# **Tools Menu Commands**

The following Tools menu commands can take arguments when used in macros: Find Next, Find All, Find in Selection, Replace With, Replace All, Replace in Selection, Find/Replace..., Line..., Page..., and Mark Text....

#### **Find Next**

#### Syntax:

- Find Next
- Find Next "Find Pattern" "Options"
- Find Next "Find Pattern"
- Find Next "Find Pattern" "\*Options"
- Find Next "Find Pattern" "Options" "Windows"

The same syntax is used with the following commands whose names explain their function:

- Find All
- Find in Selection
- Replace With

- Replace All
- Replace in Selection

#### Find Next

This instruction brings up the Find/Replace dialog.

#### Find Next "Find Pattern" "Options"

The first argument *Find Pattern* can be any regular expression or literal text that does not include a return character. The second argument *Options*, if present, is a sequence of characters each of which is an abbreviation for a search option. For example, w means Whole Word, i means Ignore Case, M means multi-document search, and so on. To turn off an option precede the letter representing that option by a minus (-). Thus -w means not necessarily Whole word. These characters are combined to form the Options argument.

Example, Find Next "business" "iw", finds the word business with Ignore Case (i) and Whole Word (w) on. The instruction Find Next "\r\r" "g-W-w", searches through to the end of the current document for the PowerSearch+ pattern \r\r (two carriage returns). Here g means: PowerSearch+ pattern. The find pattern is interpreted as a regular expression which matches two consecutive return characters. The option -W means Wrap Around is off and -w means Whole Word is off.

#### Find Next "Find Pattern"

If the Options argument is omitted then the search options are those listed in the section Default Options, page 419 in this chapter.

#### Find Next "x" "\*Options"

If the Options argument is present and the first character in that argument is the asterisk (\*), the options will be those set in the Find/Replace dialog plus those set by any other arguments you insert following the asterisk.

#### Find Next "Find Pattern" "Options" "Windows"

The first argument Find Pattern can be any regular expression or literal text that does not include a return character. The second argument Options, if present, is a sequence of characters each of which is an abbreviation for a search option. The third argument Windows

can be any open document (type the name of the file as it appears in the Title Bar).

#### Find/Replace

#### Syntax:

- Find/Replace
- Find/Replace "Find Pattern" "Replacement Pattern"
- Find/Replace "Find Pattern" "Replacement Pattern" "Options"
- Find/Replace "Find Pattern" "Replacement Pattern" "\*Options"
- Find/Replace "Find Pattern" "Replacement Pattern" "Options" "Windows"

#### Find/Replace

This instruction brings up the Find/Replace dialog.

Find/Replace "Find Pattern" "Replacement Pattern" "Options"

The arguments Find Pattern and Replacement Pattern can each be either a regular expression or any literal text. They can also be font, size and style sensitive; just select the pattern, set the attributes from the appropriate menus, and put the appropriate letters in the "Options" argument. The Options argument sets the search options as described in the Find Next instruction. For better readability, you may place the word with between the find and replacement patterns. Thus the instruction:

Find/Replace "this" with "that" "-g-Awa"

finds all occurrences of the word this and replaces them with that. Do not forget the spaces before and after the word with.

Find/Replace "Find Pattern" "Replacement Pattern"

When the "Options" argument is omitted, the search options are those listed in the section Default Options, page 419 in this chapter.

Find/Replace "Find Pattern" "Replacement Pattern" "Options" "Windows"

The arguments Find Pattern and Replacement Pattern can each be either a regular expression or any literal text. They can also be font, size

and style sensitive; just select the pattern, set the attributes from the appropriate menus, and put the appropriate letters in the "Options" argument. The Options argument sets the search options as described in the Find Next instruction. The fourth argument Windows can be any open document (type the name of the file as it appears in the Title Bar).

#### Search Options

The "Options" argument in the Find Next, Find/Replace, Find All, Find in Selection, Replace Word, Replace All and Replace in Selection instructions is optional. It is used to set the search options. Each search option is represented by a letter. These letters are combined inside a pair of double quotes to form the Options argument. They can be placed in any order.

The search options which can be included in the Options argument:

a	Replace All
A or W	Wrap Around
-A or -W	Not Wrap Around
C	Place text in the Find/Replace dialog (no search or
	replace operation is performed)
e	PowerSearch pattern
E	Jump to end of document if search fails
g	PowerSearch+ pattern
-e or -g	Find Literal
G	Search all open documents
-G	Search front document only
i	Ignore Case
I	Index mode (instead of replacing)
1	(lowercase L) Replace All in the current selected
	paragraphs
M or m	Use the Search List
-M or -m	Search active document only
n	Select last text changed after a Replace All within the
	current selection. This option is ignored if neither s
	nor l are used.
0	Find Text Only (not attribute sensitive)
<b>-0</b>	Find is attribute (font/style) sensitive
	·

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0	Replace Text Only
<b>-</b> O	Replace is attribute sensitive
r	Search toward beginning of document (in reverse)
S	Replace All in current selection
t	Avoid dialogs (Terse). When search fails, no dialog is given.
T	Terminate the current macro if the search fails
v	Display the number of substitutions after a Replace All (Verbose)
w	Whole Word
-W	Not Whole Word
W or A	Wrap Around
-W or -A	Not Wrap Around
X	Use with Find Next to copy the full path names of all files on the search list which contain the given find pattern, onto the Clipboard. Including this argument temporarily turns on multi-file search unless it is followed later by -M.
*	Use the search options currently set in the Find/Replace dialog (must be first if present)

A search option is turned on or off for each Find Next or Find/Replace instruction used. After the macro instruction has been executed, each option returns to its previous state. In other words, the search options in a macro do not set the search options of the Find/Replace dialog or the Searching menu, unless the C argument is used. For example, the instruction:

Find/Replace "Find Text" "Replace Text" "\*Cw-G"

- Uses the search options currently set in the Find/Replace dialog (\*)
- Copies Find Text to the Find box and Replace Text to the Replace box without finding/replacing or bringing up the Find/Replace dialog (C)
- Turns on Whole Word (w)
- Chooses Search Front File (-G)
- The dialog reflects the text entered and the options changed because "C" is present in the arguments.

#### **Default Options**

The same default options apply to the macro arguments as to the Find/Replace dialog. If a search option in the Options argument is not present, or the asterisk (\*) is not the first character in the options list, Nisus uses the default settings. The default settings of the Find/Replace dialog are:

- Wrap Around on
- Find literal text
- · Search front document only
- Ignore Case is on
- · Search forward toward end of document
- · Whole Word Off
- Find and Replace is not attribute sensitive
- Terse (number of substitutions dialog is not displayed unless the pattern couldn't be found.)

You can use the current state of the search options in the Find/Replace dialog and the Searching menu, by placing an asterisk as the first search option. You may override some of the current settings in the Find/Replace dialog by adding more options after the asterisk. For example, Find Next "text" "\*-w" will find text using the current settings in the Find/Replace dialog, but with Whole Word turned off.

To reset the search options in the Find/Replace dialog back to the default settings and clear both the Find box and the Replace box, use the following instruction:

Find/Replace "" "" "C"

#### Multi-File Search

To learn the basics of multi-document search read Searching Multiple Documents, page 212 in Chapter 5: Finding and Replacing Text. You might find the following instructions useful in multi-document searches.

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Find Next "" "X"

Appends the full path names of all the files in the search list (the ones marked with an eye icon in the Catalog window) onto the current clipboard. In this case no searching is performed, and after this instruction is executed the files are removed from the search list.

Find Next "Topic" "X"

Searches through all files on the search list for any text *Topic* and then appends the path names of all files containing the text *Topic* to the current clipboard. Note that no windows are opened during the search.

Find Next "" "X-MG"

Appends the path of all open files onto the current clipboard (files need not be on the search list). Note that the path of the front-most file is appended twice, once at the beginning of the list and once at its end.

Find Next "" "X-M-G"

Appends the path of the front-most document to the current clipboard.

You can save and restore the search list using the supplied macros Save Search List and Restore Search List. You can open the file Macros for Editing and edit these macros to suit your needs. Read the Nisus Macro Language: Programming Dialect pamphlet for more details.

Jump

Syntax:

- Jump
- Jump "Marker Name"
- Line "Line Number"
- Page "Page Number"
- Line "Starting Line Number" "Ending Line Number"

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- Jump "Start Marker" "End Marker"
- Jump "Line Number" "Marker Name"
- Jump "Marker Name"
- Jump "Line Number"

- **1** Jump "Marker Name"
- & Line "Line Number"
- **Page** "Page Number"
- SJump "Marker Name"

The Jump instruction may take zero, one, or two arguments.

Jump

This instruction brings up the Jump dialog.

Jump "Marker Name"

This instruction moves the insertion point to the location of the marker Marker Name. Thus the instruction, Jump "Over there", moves the insertion point to the location of the marker Over there. If there is no such marker in any open file, this instruction does nothing.

Jump "Line Number"

For example, Jump "120", moves the insertion point to the beginning of line 120. If the document contains fewer lines than 120, this instruction moves the insertion point to the end of the file.

Jump "Starting Line Number" "Ending Line Number"

For example, Jump "3" "12", selects the text from the beginning of line 3 to the beginning of line 12 (and does not include line 12 in the selection).

Jump "Line Number" "Marker Name"

For example, Jump "3" "mark this", selects the text from the beginning of line 3 to the location of the marker mark this.

Jump "Start Marker" "End Marker"

For example, Jump "life" "death", selects text between the two markers life and death.

The word END is a predefined marker which designates the end of text. Thus, Jump "5" "END" selects the text from the beginning of line 5 to the end of the file. To jump to the beginning of text use Jump "1".

If  $\Omega$  precedes Jump as in,  $\Omega$ Jump "3", the resulting instruction selects the text from the current position of insertion point to the beginning of line 3.

♥ Jump "Marker Name"

If precedes Jump as in, Jump "over there", the resulting instruction deletes the marker over there.

Mark Text...

#### Syntax:

- Mark Text... "Marker Name"
- Mark Text... "Start Marker" "End Marker"

Mark Text... "Marker Name"

Places a marker called *Marker Name* at the insertion point or selection. Thus, Mark Text... "I love this", places the marker *I love this* at the insertion point or selection.

Mark Text... "Start Marker" "End Marker"

Places two markers one called *Start Marker* at the beginning of the selection and another called *End Marker* at the end of it. Thus,

Mark Text "begin here" "end there"

places the marker begin here at the beginning of the selection and the marker end there at the end of it.

# **Double Quotes inside Arguments**

To use double quotes inside any quoted arguments, you must double the quotes. For example, to find:

"Do you have the money?" He asked.

Find Next """Do you have the money?"" he asked."

### **Single Quoted Arguments**

If an argument is in single quotes in a macro instruction it is evaluated as a replacement expression before the instruction is executed. For example, in the following macro instruction:

```
Find/Replace '\CC' "Bar" "g"
```

'\CC' means "contents of the current clipboard" and because it is in single quotes the expression is evaluated and becomes whatever is in the Clipboard. Because "g" means searching for a PowerSearch+pattern, the contents of the Clipboard are interpreted as a regular expression and the matched text is searched for and replaced with Bar. The final result is that whatever regular expression is in the Clipboard, it is searched for and replaced with Bar.

Suppose that F.. is copied onto the Clipboard. When the macro instruction Find/Replace '\CC' "Bar" "g", is evaluated, it becomes Find/Replace "F.." "Bar" "g". The resulting instruction is then executed and all occurrences of words such as Fly, Far, Fat, Fun and Fan are replaced with the word Bar.

Single quoted arguments can be useful with the Copy or Paste instructions. For example, the macro instruction Copy "2" '\CC' copies the contents of the current clipboard onto Clipboard 2. Similarly, the macro instruction Copy "6" '\C9' copies the contents of Clipboard 9 onto Clipboard 6.

Another useful trick is to include metacharacters in the argument, such as Paste "" 'Text\rmore text'. The metacharacter \r is first evaluated as a return character and then the resulting text in between single quotes is pasted at the insertion point or selection.

You can put return characters in arguments by preceding each return with a backslash (\). This causes the argument (quoted text) to continue

on the next line. The return character may also contain a ruler, as described below, and this procedure is effective with both single and double quoted arguments.

# **Rulers in Macro Arguments**

You can include rulers inside the quoted text in a macro argument. For example, to paste a ruler at the insertion point create a new macro and follow these steps:

- 1. Type Paste "" "\
- 2. Press Return.
- 3. Choose Insert Ruler from the Format menu (Make sure the rulers are shown).
- 4. Select the Paragraph Ruler and make changes to the Master Ruler.
- 5. Type the closing quote ".

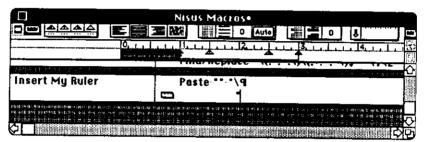


Figure 14-3 A Paste instruction with a ruler inside the argument

Figure 14-3 shows what you may see in your macro file. When this macro is executed a return character followed by the new ruler is inserted at the insertion point or the selection in the active document. Note that line wraps and tabs defined in the macro are relative to the left margin limit (gray region). Therefore when a ruler is inserted from a macro into the document, the relative distances between the left margin limit and the other parameters of the ruler are preserved. If the right margin is outside the document margin limits it is moved in. Some tabs may spill outside.

Another useful macro instruction which may include a ruler inside its argument is the Copy instruction. Follow similar steps to the previous macro.

You can create a variety of different macros that paste different named or unnamed rulers, such as Insert Pointer Ruler, Insert Bullet Ruler, etc. In script writing you might have different rulers (with appropriate text formatting) for stage directions, and different characters.

### **Working with Other Menu Commands**

The macro instructions mentioned up to this point can take arguments. Those which follow do not. To use a menu command in a macro simply type its name on a separate line. For example, the following macro instructions select all the text in a document and change the font to Chicago and the style to bold:

Select All Chicago Bold

You can also call a menu command by using its item number. For example the instruction File: 3 executes the third menu command in the **File** menu (brings up the Catalog window).

# **Working with Desk Accessories**

You can call a desk accessory and also access its menu commands. Here is a macro which copies the time and date from the **Rlarm Clock** to Clipboard 0.

Alarm Clock Copy "0" Open the Alarm Clock

Copy time and date to Clipboard 0

Close

Close the Alarm Clock

The following macro performs a simple calculation. It uses the **Calculator** desk accessory to add the number in Clipboard 0 to the

one in Clipboard 1 and put the result in Clipboard 2. To try this, copy one number onto Clipboard 1 the other onto Clipboard 2.

Calculator Bring Calculator to front Key C Clear the Calculator

Paste "0" Paste the first number into the Calculator

Key + Type the + key

Paste "1" Enter the second number

Key = Get the answer

Copy "2" Copy the answer into Clipboard 2

Close the Calculator

Note that if you have installed Macro Maker™ in your system then you can run both Nisus macros and macros generated by Macro Maker as long as there is no conflict in the names. You cannot call the macros of Macro Maker from Nisus macros and vice versa. Some menu commands in Nisus are actually built-in macros. When you try recording these in the Macro Maker they do not play back properly. The following menu commands are built-in macros, which cannot be used by Macro Maker:

- Break Lines
- Copy to Find
- Insert Page Break
- Move Left
- Move Right
- Zap Gremlins

# **Turning Menu Commands On or Off**

#### Syntax:

- Menu Command "On"
- Menu Command "Off"

Menu Command stands for any menu command which can be turned on or off. On means that the command is to be checked and Off means the command is to be unchecked. Menu commands that change their states from on to off and vice versa are called *toggle commands*. The toggle commands which allow this are:

- Show Clipboard
- Keep On Same Page
- All the commands in the **Display** submenu (except for **Line** # Prefs...)

For example, the macro instructions:

```
Space, Tab & ¶ "On"
Line Numbers "Off"
```

display the white space characters and turn off display line numbers while the instructions:

```
Master Ruler "On"
Info Bar "Off"
```

show the Master Ruler and hide the Info Bar.

# **Looping and Accessing Other Macros**

Macros can access other macros by name. They can also access themselves. A macro accessing itself is called a *looping* macro. A macro continues to loop until you stop it (with Command-Period) or when you include a Find Next, a Find/Replace, a Find All or a Find in the Selection instruction with the *T* option. The *T* option terminates the macro when a search fails. When using Command-Period to stop a macro, all macros are stopped. If a macro is stopped with the *T* option in Find/Replace, only the currently running macro is stopped. Macros which invoke the current macro proceed normally.

A macro can invoke any other macro which is in the currently loaded macro file, that is any macro that appears in the **Tools** menu. Invoking one macro from within another is like executing any other menu command. Write the name of the macro to be invoked on its own separate line in the accessing macro.

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#### **Example: Rolling Characters**

To create a macro that "rolls" three characters, that is, one that turns abc into bca, or cat into atc, use the **Swap Char** macro which is described in Recording Macros, page 390. Rolling characters can be seen as two successive swaps, where abc becomes bac and then bca. If you put the insertion point immediately before the letter a in abc, and then choose the **Swap Char** macro, it would swap a and b, but the insertion point would remain to the right of b. So, to swap b and c, it is necessary to move the insertion point back one character before calling **Swap Char** again.

Nisus allows you to move the insertion point back one character by using the left arrow key or typing Command-Backspace or Command-Delete. The "roll" macro looks like this:

swap char Key **%** ← swap char

To create this macro follow these steps:

- 1. Choose Record from the Macros submenu.
- 2. Choose **Swap Char** from the **Macros** submenu of the **Tools** menu (assuming that it is present in the loaded macros file menu).
- 3. Press Command-Backspace to move the insertion point one character to the left.
- 4. Choose Swap Char again.
- Choose Stop Recording... from the Macros submenu of the Tools menu.
- When the Macro Name dialog appears on screen, type the name of the macro (For example, Roll Chars) and press Return or click Name

The current macro file is displayed on screen showing the recorded instructions under the macro name provided. Note that the Command-Backspace appears as  $\Re \leftarrow$ .

Alternatively you can create this macro as follows: Choose New Macro... from the Macros submenu of the Tools menu. Type the name Roll Chars into the naming dialog and press Return or click Name. Type the macro instructions listed above into the macro editing window. To enter the backspace and the Command "%" characters, choose ASCII Table... from the Edit Tools submenu of the Tools menu, double-click on a backspace (ASCII 8) character and a clover (ASCII 20) character and they will paste into your macro file at the insertion point. Choose Save and Close from the File menu to close the window.

# **Useful Editing Commands**

Nisus offers many editing facilities which may be useful in macros. In order to accomplish these commands, all keys indicated need to be press simultaneously.

# To move the insertion point... Press...

left one character right one character left one word

right one word

up one line down one line to end of paragraph (non repeating)

to beginning of paragraph (non repeating)

to beginning of

previous paragraph to beginning of next

paragraph to top of window to bottom of window Command Backspace (or Left Arrow) Command Space (or Right Arrow) Command Option Backspace

(or Option Left Arrow) Command Option Space (or Option Right Arrow)

Up Arrow Down Arrow

Command Right Arrow

Command Left Arrow

Command Enter

Command Return Command Up Arrow Command Down Arrow

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# To extend the selection...

left one character right one character left one word right one word up one line

down one line

beginning of previous paragraph beginning of next paragraph

#### Press...

Command Shift Backspace
Command Shift Space
Command Option-Shift Backspace
Command Option-Shift Space
Command Shift Up Arrow
(or Shift Up Arrow on a new keyboard)
Command Shift Down Arrow

Command Shift Down Arrow

(or Shift Down Arrow on a new keyboard)

Command Shift Enter

Command Shift Return

#### To delete...

#### Press...

a character to the left a character to the right one word to the left one word to the right Backspace del<sup>1</sup> or Right Arrow then Backspace Option Backspace Option del or Command Shift Option Space then Backspace

#### To...

#### Press...

bring the selection or insertion point into view

Enter

select text to end of paragraph

Command Option Shift Return.

select text to beginning of

paragraph

Command Option Shift Enter.

<sup>&</sup>lt;sup>1</sup>Note that the del key is only available on the extended keyboards and its action is not recorded in a macro.

# **Display Dialog Box**

#### Syntax:

- :1 "Message"
- :1 "Message" "text in edit box"

#### :1 "Message"

This instruction pauses execution of the macro, displays a dialog with the quoted message and resumes execution when you click OK. For example, the instruction :1 "Hello World" displays a dialog box with the message *Hello World*. When this instruction is executed the dialog illustrated in Figure 14-4 is displayed on your screen.



Figure 14-4 A dialog box displayed from a macro

Click or press Return to resume the macro. Displaying dialog boxes with messages is helpful in testing macros. It is particularly helpful when the macro being executed is long and you want to know exactly when a particular instruction is being executed.

#### :1 "Message" "text in edit Box"

You can also display a dialog which includes a text edit box. To do this include a second argument in the :1 instruction as in:

:1 "How are you?" "Fine, thank you!"

When this instruction is executed the following illustrated in Figure 14-5 is displayed on your screen.

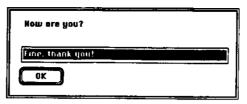


Figure 14-5 A dialog with a text edit box displayed from a macro

The user of the macro can then type any text into the dialog box. If you want the dialog to appear with the text box empty, include no text between the second set of quotes. When the user clicks the text typed in the text edit box is copied to the current clipboard.

The clipboard is not updated if it is the front-most window showing.

# **Automatically Executed Macros**

The following macro names are special reserved names. Macros using these names are automatically executed on the occurrence of certain events. Name your macro one of these and it will get executed on these specified events.

# The macro Name... is executed when you...

**Command** press and hold down Command while

double-clicking. (This defaults to Copy to Find unless you write your own

macro.)

CommandOption press and hold down Command Option

while double-clicking.

Option press and hold down Option while

double-clicking.

InitOpen open a document.

InitInit start Nisus. It must be in the Nisus Macros

file which must be present in the System Folder or the same folder as Nisus. It is also executed when you load the macro

file which contains it.

InitRevert choose Revert To Saved from the File

menu.

InitNew open a new file.

Switchin enter Nisus from the Switcher or

MultiFinder.

These macro names are not case sensitive. Nisus makes no distinction between upper or lowercase in macro instructions in the Menu Command Dialect or macro names.

Nisus has a built-in Command macro that copies the selection to the Find/Replace dialog. If you press and hold Command while double-clicking on a word, it will be copied to the Find/Replace dialog. This is similar to selecting a word and then choosing **Copy to Find**. If you want to select and copy more than one word to the Find/Replace dialog, press and hold Command, double-click on the first word of the text and do not release the second click until you have dragged the mouse to the last word of the selection. Releasing the mouse triggers the macro and copies the selection into the dialog. The presence of your own Command macro overrides this built-in macro.

Similarly, you can write a CommandOption macro that adds a selection to the index. Create a new macro and name it CommandOption, then type the following macro instruction:

Mark Index

To add an entry to the index hold down both Option and Command while double-clicking to select text. When you release the mouse the selection is entered in the index.

Similarly you can write an Option macro which adds an entry to the table of contents. The Option macro should have the instruction:

Mark Contents

# **Advanced Examples**

#### **Text selection**

Selecting text by clicking and dragging the mouse cannot be recorded in Nisus, but it can be done in conjunction with a Find Next instruction as follows:

- 1. Set a temporary marker at one end of the text to be selected.
- 2. Place the insertion point at the other end of the text.
- Choose the marker from the Jump To submenu of the Tools menu with the Shift key held down. This selects the text starting at the insertion point to the marker.

Here is a sample macro that uses the Jump instruction to select text between *There was* and *ever after*:

```
Find Next "There was"
Mark Text... "Begin"
Find Next "ever after"
Key % (space)
① Jump "Begin"

S Jump "Begin"
```

The first Find Next instruction finds *There was*. The instruction Mark Text... marks the beginning of the selection with the marker *Begin*. The second Find Next instruction finds the end of the selection. The instruction "Key X" is equivalent to typing Command-Return. It moves the insertion point to the start of the next line. The instruction \(^1\) Jump "Begin" moves the insertion point back to where the marker was placed. The Shift key is held down, as indicated by the \(^1\) symbol, and the jumped over text is selected. The Option key is held down, as indicated by the \(^1\) symbol and the instruction \(^1\) Jump "Begin" removes the marker *Begin*.

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#### Find an address

This macro searches the active document for an address which is written in the form shown below and copies it to the current clipboard. Create a new document and type a few addresses. Separate the addresses by a blank line. Leave a blank line at the beginning of your address list. Make sure you type the addresses in the following form:

Paragon Concepts 990 Highland Drive Suite # 312 Solana Beach CA 92075 (619) 481-1477

The zip code can be in either 5 digit or 9 digit form. Now create a new macro and type the following instructions:

```
Find Next ":u:u\s+:d:d:d:d:d\(\\s*\--\s*:d:d:d:d\)-"
"g-AtT-w"

Find a State followed
```

	ring a State followed
	by a Zip code
Key <b>¥</b>	Type Command-Return
Mark Text "ZZEnd"	Set marker
Find Next "\r\r :s\r" "-ATtg-wr'	' Find blank line
Key ¥	Type Command-Space
	Select text between the
	insertion point and the marker
Сору	Copy address
Jump "ZZEnd"	Delete marker

The comments lines are included here for clarity. The first Find Next instruction searches for the text that matches the following regular expression:

```
:u:u\s+:d:d:d:d\(\s*\--\s*:d:d:d:d\) -

:u:u\s+

matches two uppercase letters
followed by any number of spaces.
It matches a state such as CA, AZ
and so on.
```

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matches a sequence of 5 digits of a zip code such as 92075

\(\\s\*\--\s\*:d:d:d:d)-\matches zero or one occurrence of whatever \s\*\--\s\*:d:d:d:d

matches.

\s\*\-
matches zero or more spaces followed by zero or one dash.

matches zero or more spaces followed by a sequence of 4 digits.

This matches the optional 4 digit extension of the zip code.

The instruction Key **%** (no space after the Command symbol) is equivalent to typing Command-Return. It moves the insertion point to the start of the next line. The instruction Mark Text... marks the end of the address with ZZEnd. The second Find Next instruction searches backward (the search option r) for two consecutive return characters ( $\r$ ) or the beginning of document (:s). The instruction "Key % " (with a space after the Command symbol) is equivalent to typing Command-Space. It moves the insertion point to the end of the selection. The selection point is now at the beginning of the address. The instruction 🗘 Jump "ZZEnd" moves the insertion point back to where the marker ZZEnd was placed. The symbol  $\Omega$  indicates that the Shift key is held down while choosing Jump. In essence the text between the current position of the insertion point and the marker ZZEnd is selected. The Copy instruction copies the address onto the current clipboard. Finally the instruction Jump "ZZEnd" removes the marker ZZEnd.

### **Smart quotes**

To change all double quotes in expressions such as "The Leader of the People" to smart quotes as in "Over the Bounding Waves" search for \<" (quotes at the beginning of a word, presumably opening quotes) and replace it with ". Then search for \>" (quotes at the end of a word, presumably ending quotes) and replace it with ". Do the same for single quotes, except that single quotes at the end of numbers have to be excluded. They are presumed to designate the foot measurement symbol. A single quote followed by another single quote has to be excluded as a likely inches measurement symbol. Replace

all remaining single quotes not preceded by a digit or another single quote with the closing single smart quote to account for the apostrophe. The macro consists of the following instructions:

```
Find/Replace "\<"" "a-wAg"
Find/Replace "\>"" "a-wAg"
Find/Replace ":<[^']\<'" "" "a-wAg"
Find/Replace ":<[^'0-9]\>'" "" "a-wAg"
Find/Replace ":<[^'0-9]':>[^']" "" "a-wAg"
```

The last find pattern matches a single quote not preceded by a digit and not followed by a single quote. This macro is not foolproof. It will not replace quotes correctly around expressions which are not usually parts of a word such as "-" or '+'. To correct for this the beginning of word metacharacter (\<) is replaced by the user defined wild card: :<[\s\r\t ([{]] which translates to "the preceding character is a space, return, tab, or any of the opening brackets or parentheses." Therefore the resulting instruction:

```
Find/Replace ":<[\s\r\t([{]""" """ "a-wAqt"
```

replaces any double quotes preceded by a space, a return, tab, left parenthesis, brace or bracket, with smart opening quotes. While the instruction:

```
Find/Replace """ "a-wAgt"
```

replaces all remaining double quotes with smart closing quotes. Similarly, the following instruction is used to replace single opening quotes with smart ones:

```
Find/Replace ":<[\s\r\t([{}]'" "'" "a-wAqt"
```

and the instruction:

```
Find/Replace ":<[^'0-9]\>'" "'" "a-wAgt"
```

replaces closing quotes which are not preceded by a digit or a single quote with closing single quote. Finally the instruction:

replaces the remaining single quotes not preceded by a digit (apostrophes) with closing single quotes. This macro is included with the supplied file Macros for Editing.

# 15 Customizing Nisus

Nisus comes with preset values called default settings. After you have worked with Nisus for a time you may find that you want to establish your own file containing personal Preferences when using the program.

For example, you may write a lot of new documents and so would prefer to have Nisus open a new untitled document immediately when it starts up. The default settings are set so that the Catalog window opens when you start Nisus. You can change this and have a new file open at start up by using the **Start Up...** command on the **Preferences** submenu in the **File** menu.

If you want the preference changes to be remembered the next time you use Nisus, choose **Save Preferences** from the **File** menu before quitting. If you quit without saving the preferences, Nisus will ask you if you want to save them. Choosing **Revert** will always set the Preferences back to the preset default values.

When you save preferences, Nisus creates a file called *Nisus Preferences* 3.0, in the System Folder. You can have several such sets of preferences saved but only one can be used at one time. To use a different preferences file, remove the old one from the System Folder (or rename it) and replace it with the new one, and rename it Nisus Preferences then restart Nisus.

The Nisus Preferences 3.0 file in the System Folder is not shown checked (in the Catalog) when it is loaded. Do not load more than one preference file at a time because you might get conflicting results such as two menu commands being assigned to the same key.

# **Program Preferences**

Program preferences will affect all documents, whether or not they are currently open. The **Preferences** submenu is in the **File** menu.

### **New File Preferences**

There is no preference dialog for new files because this feature is presented in a much more powerful way using a special stationery file called "Nisus New File."

When you choose **New** from the **File** menu, Nisus looks for the file Nisus New File, in the same folder as Nisus and in the System Folder. When it is found it automatically opens a file with the name **Untitled**, and all the settings (such as rulers, font size and style as well as any text) appear the way they were saved. If the file is not found, an empty document with the name **Untitled**, is opened with the font set to Plain 12 point Geneva and with no ruler settings.

Nisus New File gives you control over the font, size, and style of the text as well as the local preferences described in this chapter. For more information on the Nisus New File, see page 65 and check the index to see what other attributes can be associated with your New File.

You can also create an InitNew macro to set the font, size, style, and do anything else you want when a new document is created. This macro is executed whenever New is chosen. Read the section on Automatically Executed Macros page 432, for more details on how to create this macro.

#### Revert

Reverts all your preferences to those originally supplied with Nisus.

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## Start Up Preferences

These preferences, illustrated in Figure 15-1 determine whether the Catalog, Clipboard, and new document windows are opened when Nisus is first opened.

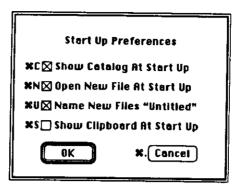


Figure 15-1 Start Up Preferences

When you open a new file, it is named **Untitled**. To be prompted for a file name instead, uncheck this option in the dialog box.

## Saving Files Preferences

It is important to save your document frequently. If you choose **Save** then change your mind, choosing **Revert To Saved** from the **File** menu will not bring back the previous document because saving replaces the previous version with the current version.

#### Save .bak Files

You can, however, have Nisus rename the last version automatically before the current version is saved to disk. You will then always have your work from the last *two* saves available. To back up your document automatically before every save, check the **Save** .bak **Files** option in the dialog box illustrated in Figure 15-2. Whenever you save your document, the file on disk will be renamed by appending

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.bak to the document name. You can see the previous version of your document by opening this file.

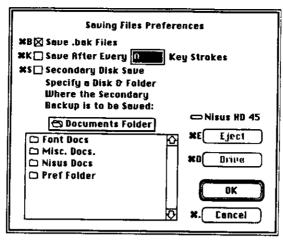


Figure 15-2 Saving Files Preferences

#### **Auto Save**

Sometimes, you may forget to save your document. You can have Nisus save your document automatically after a certain number of keystrokes. Check the Save After Every Key Strokes option to turn it on and set the number of keystrokes between saves.

### Secondary Disk Save

For safety, you may wish to save your document on two disks at the same time. Whether you choose Save, or Nisus saves automatically, the **Secondary Bisk Save** option will cause your document to be saved in two places. The first place is always in the current directory. The second place is in the folder whose name appears above the scroll list in the Saving Preferences dialog illustrated in Figure 15-2. The document will be saved with the same name in both folders.

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### **Editing Preferences**

The Editing Preferences dialog, illustrated in Figure 15-3 allows you to customize the way text is handled in your editing window.

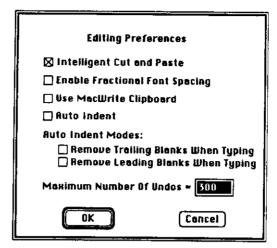


Figure 15-3 Editing Preferences

#### Intelligent Cut and Paste

**Intelligent Cut and Paste** is convenient for moving words. When this option is checked, and you double-click on a word to select it and then choose Cut, the space preceding this word is also deleted. When you Paste, the extra space will be inserted only if the insertion point is placed next to another word. Consider the sentence:

I want you to just check my spelling.

To move *just* before *want*, perform the following steps while referring to Figure 15-4.

- 1. Double-click on the word just.
- 2. Choose Cut.
- 3. Place the insertion point before want.
- 4. Choose Paste.

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I want you to just check my spelling.
I want you to check my spelling.
I just want you to check my spelling.

Figure 15-4 Using Intelligent Cut and Paste

The extra space is removed during Cut and inserted during Paste. If *just* is pasted in between the characters of another word while intelligent cut and paste is on, spaces will be inserted on both sides of it. If the insertion point is placed after the C in "not ABCDEFG" the result will be "not ABC just DEFG."

#### **Enable Fractional Font Spacing**

Check **Enable Fractional Font Spacing** to use the fractional font spacing information stored with PostScript fonts. This aligns the characters on an internal grid which is more precise than that of the screen. When the characters are displayed on the screen, they are aligned on the nearest pixel. This may cause your text to look irregular on the screen, but overall, the characters reflect more accurately their position in the printed document. It is best to have this option turned off when sending output to low resolution devices such as the ImageWriter, and to have it on when sending it to high-resolution devices, such as a PostScript printer.

#### Use MacWrite Clipboard

The **Use MacWrite Clipboard** option allows you to use the MacWrite Clipboard format. Use this option when moving formatted text between Nisus and other word processors which support the MacWrite Clipboard format. This will enable you to retain the format and attributes of your text which are understood by MacWrite. Otherwise, only the text will be preserved.

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#### Auto Indent

Automatic indentation indents the next paragraph the same amount as the current paragraph. This is helpful for entering text in columns. Indent before typing the first item in the column and Nisus will indent the same amount when you press Return.

# Remove Trailing/Leading Blanks When Typing

When these preferences are checked, unnecessary spaces can be removed from the beginning and end of a paragraph when you press Return. Remove Trailing Blanks When Typing will also remove trailing spaces when you press Tab. These features should be turned on only if you are using Auto Indent and are using Nisus to do a lot of column entries. These features do not work when Auto Indent is not on.

### **Undo List Length**

Initially, the maximum number of undos is set at 300. If you need more or less than this, you can specify a number from 1 up to 32,767. Set the maximum number of undos to a smaller number to conserve memory.

# **Searching Preferences**

The Searching Preferences dialog shown in Figure 15-5 allows you to change the start up settings of the Find/Replace dialog.

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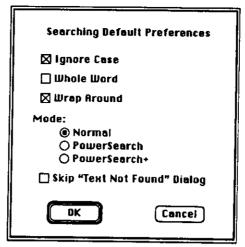


Figure 15-5 Searching Preferences

You can specify which search options (Ignore Case, Whole Word, Wrap Around) are on and which are off when you first start the program. You can set the initial mode of the Find/Replace dialog to Normal Search, PowerSearch or PowerSearch+. In addition, you can turn off the message displayed when the search is unsuccessful. Note that if the Skip "Text Not Found" Dialog option is checked and text is not found Nisus beeps. Chapter 5 explains the Find/Replace dialog in more detail.

# **Scrolling Preferences**

The Scrolling Preferences dialog, illustrated in Figure 15-6 gives you control over automatic scrolling in both directions and the maximum scrolling speed.

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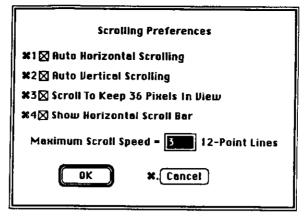


Figure 15-6 Scrolling Preferences

#### **Automatic Scrolling**

The automatic scrolling control applies only to bringing the current insertion point into view while typing beyond the edges of the editing window. Note that when you select text and drag with the mouse, automatic scrolling will still occur whether or not auto scroll options are checked.

#### Keep 36 Pixels in View

Keeping 36 pixels in view applies to automatic scrolling in both directions. If automatic scrolling is turned off, it has no effect.

#### Horizontal Scroll Bar

Hiding the horizontal scroll bar removes it from view. This has no effect on automatic horizontal scrolling.

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#### Maximum Scroll Speed

The maximum scroll speed is specified as the number of lines. When you scroll up or down using the scroll bar arrows, at most that many lines are scrolled. Initially, one line is scrolled at a time, but as you hold down the mouse button the scroll speed increases until the maximum scroll speed is achieved.

#### **Measurement Preferences**

The Measurement Preferences dialog illustrated in Figure 15-7 deals with the ruler dimensions and the information bar display of the insertion point position.

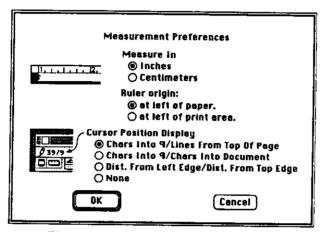


Figure 15-7 Measurement Preferences

You can select inches or centimeters for the ruler measurement. The display of the insertion point position in the information bar can be set to be:

- Characters from beginning of paragraph/Lines from the beginning of the page.
- Characters from beginning of paragraph/Characters from beginning of document.
- Distance from the left of page/Distance from the top of the page.

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Alternatively, the display of the insertion point position can be turned off by clicking the **None** button as in Figure 15-7. See page 69 for an explanation of the information bar.

#### **Printing Preferences**

The Printing Options dialog, illustrated in Figure 15-8 lets you specify a default printer for the purpose of deciding the page size and margins. This setting is only used when you do not have a printer driver selected in the Chooser dialog. This is a very useful option when working on a Macintosh that is not connected to a printer, because the printer drivers can be removed from the System Folder to save disk space. You can later use a system disk with the correct driver, to print your document.

In this dialog you can also determine whether or not you wish to have your documents printed with the White Space, text hilites and Invisible Text shown. Check **Print with all "Bisplay" options as shown on screen** for true WYSIWYG (What You See Is What You Get) printing.

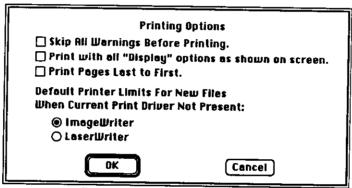


Figure 15-8 Printing Preferences

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#### **Parentheses Preferences**

#### Parentheses Definition

Use this preference to set the quotes and parentheses recognized by Nisus while matching parentheses. Read more about this feature on page 325 in Chapter 11.

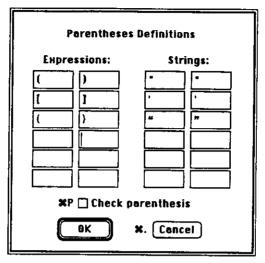


Figure 15-9 The Parentheses Definitions dialog

The Parentheses Definitions dialog, illustrated in Figure 15-9 allows you to define the parentheses and quotes which Nisus will check. You may add new ones or remove the existing ones. Quote parentheses (labeled Strings in the dialog) are different from standard parentheses (labeled Expressions). The **Strings** parentheses are actual quotations. The standard settings here are the single and double quotes as well as the corresponding smart quotes. The **Expressions** parentheses are true parentheses which can be nested to any depth. For example with the standard definitions, if you wanted to quote a left bracket as in "[", Nisus would not count the bracket as an unmatched parenthesis because it is inside quotes. The converse is not true: the bracketed quote ["] would be counted as an unmatched quote.

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#### Parenthesis Checking

Clicking the **Check parenthesis** box causes Nisus to display unmatched parentheses in the information bar of your window as you type. The default parentheses which are recognized by Nisus are the ones defined in the dialog seen in Figure 15-9.

#### **Dictionaries Preferences**

These preferences allow you to specify the dictionary, thesaurus and user dictionary locations so that Nisus will know where to find them. When you use the spelling checker or thesaurus and if you do not set these preferences, Nisus will look for the dictionaries in the same folder as the application or the System Folder. If it does not find them there it will ask you to locate them using the Open File dialog. The American version of Nisus is shipped with a combined Dictionary/Thesaurus called Nisus Thesaurus. If you are using one of the special dictionaries supplied by Paragon you should select that for your Main Dictionary and the Nisus Thesaurus for your thesaurus in the Dictionaries Preferences dialog illustrated in Figure 15-10. Otherwise you can select the Nisus Thesaurus for both the dictionary and the thesaurus.

Nisus will automatically load any dictionary, thesaurus, or user dictionary in the same folder with the application or the System Folder that is prefaced with the name Nisus.

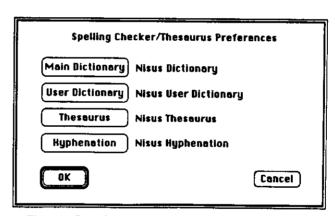


Figure 15-10 The Dictionaries Preferences dialog

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You can, at any time, change from the current dictionary or thesaurus to another one by opening it from the Catalog. The **Dictionaries**... preference is used only to specify default locations of the dictionaries.

# **Assigning Command Keys to Menu Commands**

#### Introduction

Nisus supports full implementation of the Macintosh extended keyboard. Nisus comes shipped with the standard Macintosh Command key equivalents (K: Cut, C: Copu, U: Paste, etc.) Although speed tests show it is generally faster to use the mouse than the menu keys to initiate commands, there are people who prefer to use the keyboard. For these people, Nisus is shipped with a Nisus Preferences 3.0 file which has almost every menu command assigned to some key set. If you want to try out our assignment, then you should copy the supplied "Nisus Preferences 3.0" file to your System Folder and Nisus will automatically load it at start up time. You can edit any Command key assignments. If at any time you want to revert to the internal assignments of all the preferences, choose Revert from the Preferences submenu of the File menu. Remember that the preferences file also holds all the other preferences you may have assigned. Deleting or renaming the preferences file will also revert all those preferences to the ones assigned internally. Double-clicking on a preferences file in the Catalog will load all the assigned preferences in that file.

This chapter uses special symbols to designate modifier keys and to distinguish the keys on the numeric keypad from the same keys on the main keyboard. These special symbols, illustrated in Figure 15-11 are also used to show the key assignments on the menus.

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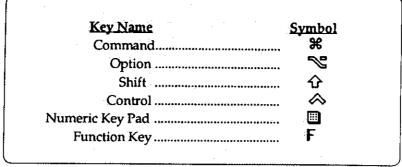


Figure 15-11 Menu Key names and their symbols

#### Multiple Key Assignments

Nisus allows you to assign one, two, or three keys to any menu command. To use a Command key set of two or three keys hold down the Command key modifier (%) and type the assigned key sequence. For example if Insert Ruler has the Command key %IR assigned to it, you can execute Insert Ruler by holding down % while you type an I followed by an R, and then letting go of the Command key.

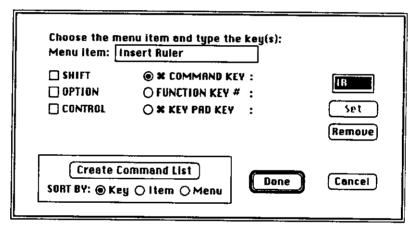


Figure 15-12 Menu Key Dialog

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Nisus supports the assignment of Function keys from extended keyboards, option characters as Command keys, as well as combinations of the Control ( $\triangle$ ), Shift ( $\Omega$ ) and Option ( $\mathbb{N}$ ) key modifiers in combination with a Command key. You can also assign keys on the numeric keypad independently of, and in addition to those on the main keyboard. When Numeric keypad keys are assigned the special keypad symbol ( $\square$ ) is displayed on the menu to designate the assignment. When you assign the Function keys (on the extended keyboard) the menu displays the letter  $\mathbf{F}$  followed by the number of the key.

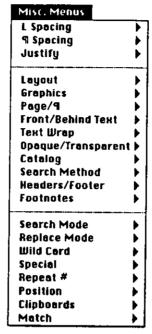


Figure 15-13 The Misc. Menu

Assigning Command keys to menu commands is simple. Choose Menu Keys... from the Preferences submenu of the File menu. A dialog will appear, as illustrated in Figure 15-12 and every menu will then become active. An additional Misc. Menus menu, illustrated in Figure 15-13, will also appear on the menu bar. This menu contains submenus for those menus that are normally accessible only in various contexts<sup>1</sup>. This allows you to assign command keys to every command, no matter where the command is used.

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Remember that Nisus has other sets of menus available when one or more modifier keys are pressed. When you are assigning key equivalents you can use modifier keys to access these alternate menu commands. If one of these modified menus is a submenu, your pointer must be in the submenu to activate it for the purpose of assigning a menu key. When you select a menu command its name appears in the dialog. If the selected menu command already has command keys assigned to it, the first key set assigned will also appear in the dialog with the appropriate modifier check boxes set.

After you have selected a menu command, you may remove any command keys which may be already assigned using the Bemove button. Note that deleting or overtyping any existing assigned key set showing in the dialog will not remove it from that menu command. It will remain available as an alternative assignment, but will not display on the menu. Only the last assignment will display.

### **Assigning Command Keys**

To assign a Command key set, when the Menu Keys dialog is active, do the following:

- 1. Select the menu command<sup>2</sup> to which you wish to make a key assignment, using modifier keys for the modified menu commands when necessary.
- Type the unmodified key (or two, or up to three keys) which will then display in the assignment box as the corresponding character(s). All alphabetic characters display as uppercase only.

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<sup>&</sup>lt;sup>1</sup>The menus L Spacing, ¶ Spacing, and Justify do not appear on any menu. Access to these features is via the ruler and they are put on the Misc. Menus during menu key assignment to make it possible for you to assign key equivalents to all these Nisus functions.

<sup>&</sup>lt;sup>2</sup> If a menu command already has a command key assigned to it, 70u can access the menu command using the already assigned command key. The result is the same as selecting the menu command from the menus using a mouse. Menu commands that have Functions Keys assigned to them can only be accessed by typing the Function Keys immediately after the Menu Keys dialog is first opened, or after setting a Command key.

- 3. Click any of the modifier key boxes (Option, Control, Shift or the Numeric keypad) you wish the assignment to use. If you want to assign a function key, first click the Function Key button and then type the number of the function key you want to assign, or simply type the Function Key desired.
- 4. Click set to make the assignment.

If there is a conflict, because the keys are already assigned, you will see a dialog questioning your new assignment, as illustrated in Figure 15-14.



Figure 15-14 Menu Key Removal dialog

- 5. Check the menu command. It should already display the assignment. If you change your mind, click Remove and repeat the assignment. Note that special icons are used for the modifier keys, and to designate keys on the numeric keypad.
- 6. Select the next menu command to which you wish to assign keys and repeat the process.
- 7. When you have finished making all the assignments, click Done
- If you choose a command from those menus in which commands can be added and removed (Glossary, Macros, Windows, Fonts, Styles (User Styles) and the Apple & menus), the Menu Keys dialog box will add another option, illustrated in Figure 15-15 from which you can decide whether the key command should stay with the menu item name or the particular location on the menu to which the key was assigned.

- L	clentific	
SHIFT	* COMMAND KEY:	
OPTION	O FUNCTION KEY # :	<u></u>
CONTROL	O X KEY PAD KEY :	( Set
	ys with menu item name.	Remov
	ys with location on menu.	(nembe
Create C	ommand List	
	y O I tem O Menu	ne Cance

Figure 15-15 The movable command Menu Key dialog

When you click **Done** the Menu Keys dialog will go away and you will be returned to your document. To preserve the assignments for the next time you start Nisus, use the menu command **Save Preferences**. These are saved in a special file named Nisus Preferences 3.0 in the System Folder. When you start Nisus, they are automatically loaded. If you re-name this file or move it to another folder, the preferences will not be loaded. You can have several different preferences files, but only one can be loaded at a time. You can force a loading of any preferences file by double-clicking on its name in the Catalog.

### Modified Key Assignment Method

There are two different ways you can choose to assign certain keys using the Option and/or shift key modifiers. This is illustrated by the following examples.

- Method I:
   To assign 分第=, type "=" and check the \$HIFT box.
- Method II:
   To assign %+, press the Shift key and type "=" which is on the same key as "+"(note that when you do this you cannot also check the shift key box—it is disabled).

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Both assignments will require that you press the same keys to use them, but they will display differently on the menu: The first method will display \partial \mathfrak{\mathfrak{H}}=, the second as \mathfrak{H}+

To assign \sim \mathbb{H}M, type "m" and then check the Option box. All shifted and unshifted keys are shown in caps. The shifted and optioned keys show the shift (1) and option (\sim ) symbols on the menu. If you use the Method II procedure, some option characters will display as special symbols. During assignment, type the option character into the assignment box if you want to have those symbols displayed on the menu. The following is another example of these two ways to assign Option-Command-P:

#### • Method I:

Type "p" into the assignment dialog and check the **OPTION** check box. The display on the menu (after you click set will show \$\mathbb{S} P.

Method II:
 Press the Option key and type "p" (= π) into the assignment dialog and ℋπ shows on the menus.

If at any time you make a mistake you can immediately exit by clicking Cancel, voiding all the changes you have just made.

# Menu Key Assignment Rules

There are a few rules in assigning menu keys. If you try breaking them, in almost all cases Nisus will not let you. They are listed here only to explain the occasional beeps you will get if you try.

- You cannot mix Command keys from the keyboard, keypad and/or Function keys for one menu command assignment.
   Nisus will not allow you to do this.
- Function keys cannot be assigned in combination with any other key: they can only be assigned on their own, only one key per menu command.
- Command keys are limited to three letters per menu command.

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- You cannot mix, in one menu command assignment, characters assigned by using Method II described above, with those assigned using Method I. If you try to do this Nisus will beep at you. But you can assign any key set by using Method I to one menu command and using Method II another key set to another menu command.
- You cannot mix, in one menu command assignment, characters assigned using two different modifier keys. For example you cannot assign Command-Option-P-Shift-a to anything.
- You are not allowed to assign ☆ ₩0 through ☆ ₩9 (in words: Command-Shift-Zero through Command-Shift-Nine). These are reserved by the Macintosh operating system.
- Nisus has reserved two keys which it will not let you assign.
  These are: \$\mathcal{H}\$. (Command-Period: the general STOP command); the \$\mathcal{H}\$- (Command Minus: used for inserting a manual hyphen) and of course \$\mathcal{H}\$ (Command-Space), because you cannot see a space!

If a menu command has more than one Command key set assigned to it only the last one assigned will display on the menu. If you want to remove one of the Command key sets, other than the one that is showing, you have to remove all of the assigned command keys and then add back the ones you want to keep.

#### **Creating a Key Command List**

If you are not sure what Command keys are assigned to the menu commands or if you want to have a list of all key assignments, click the Create Command List button in the Menu Keys dialog, to create a document containing a list of all the current assignments. Three different types of alphabetical sorts are available to you when creating this list:

- Keys sorted by command key
- Name sorted by menu command name
- Menu sorted by menu name under which each command appears, and by command name within a menu group.

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The list is created in a new file which can be edited, saved and/or printed. All assignments are shown. The one showing on the menu is shown first.

## **Using Multiple Key Assignments**

Because Nisus allows you to assign up to three keys per command, you can, for example, make the following assignment:

Key Assignment
 Command-C
 Copy
 Command-CA
 Coiro

Command-CAT Catalog

Having made this assignment, if you now type Command-C and keep holding the Command key down, Nisus will wait to see if another character is to follow. It will delay execution of the command for a fraction of a second before it decides that no more keys are coming. This waiting time is proportional to the time between clicks which is adjustable in the Control Panel. If you want Command-C to execute immediately, you must let go of the Command key immediately after typing the "c".

This may affect your choice of command keys. If you want a single, or double command key sets to execute immediately, then you cannot have additional, multiple command keys that begin with the same letter as the single, or double command key. Triple key assignments always execute immediately because no more keys can be assigned.

## **Document Preferences**

The following preferences are local to the document. They can be set differently for each document and are saved with the document rather than in the preferences file.

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#### Line Number Preferences

To change the way line numbers are displayed choose Line # Prefs... from the **Display** menu of the **Tools** menu. The dialog displayed, shown in Figure 15-16, allows you to set the attributes of the line numbers. Choose the font, size and style of line numbers from the **Font**, **Size** and **Style** menus. The other buttons are self explanatory. You can display every line number or every second or tenth line number. To set this, type the appropriate number into the box in the dialog.

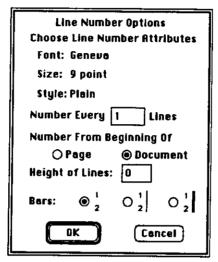


Figure 15-16 Line Number Preferences

Line number preferences are different from other preferences because they do not change the document text. You cannot Undo the line number display by using the **Undo** command. You can have line numbers displayed in one document and not in another. When you change line number preferences, they are changed for the document in the active window. To undo the display, choose the **Line # Prefs...** command once more. You can have line numbers displayed in the Catalog, the Find/Replace dialog, as well as in the macro and glossary windows. If you print the document with the line numbers showing they will be printed.

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When you open a new file (without the presence of the special Nisus New File stationery), the default line number preferences will be used. These are the ones showing in Figure 15-16. To set your own new file line number preferences create a stationery document. For directions see Nisus New File, page 65.

It is not possible to number lines in the footnotes, headers or footers.

#### Variable Format Preferences

The display format of variables is specific to each document. You can change the manner in which the time, date, and page number variables are displayed for individual documents.

You may display the time in 12 hour or 24 hour formats. The current format used is set to the one used in the Control Panel in the Apple menu and variants based on it.

The date and page number formats are set using the Variable Format Preferences Dialog shown in Figure 15-17.

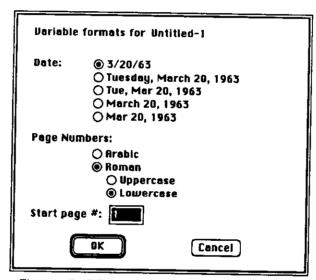


Figure 15-17 The Date & Page# Formats dialog

To get this dialog, choose **Set Date & Page# Formats...** from the **Format** menu. Any changes that you make will affect all date or page number variables in the entire document. You will see the changes the next time you update variables. This can be done by choosing **Update Time & Date** from the **Format** menu or by clicking the appropriate button in the Print dialog.

## **Implied Preferences**

When you save your file, the state of the document window such as window size, position, ruler and information bar display, insertion point or selection region are all saved with the document. The attributes of the Catalog window, the font and size and style of its text, are also saved in the preferences file when you use the <code>Save Preferences</code> command. The shape and position it has on the screen are saved separately from the preferences file.

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# 16 Troubleshooting

## Find/Replace Dialog

Problem: PowerSearch+ expression not found

Solution: If you were doing a search with PowerSearch+ and the expression was not found, perhaps you typed it incorrectly. Perhaps some characters you intended to be taken literally were interpreted as metacharacters. Literal characters should be preceded by a \.

Perhaps you intended a normal search. To initiate a normal search, choose Normal Search from the pop-up menu. Check to see if Whole Word, Ignore Case, Wrap Rround in the Find/Replace window, and Find Text Only in the Search Method menu are the way you want them.

Problem: Undesired text is found or literal text is not found

Solution: Make sure Normal Search is chosen from the pop-up menu and that Whole Word button is not checked if the expression includes non-word characters (spaces, returns tabs etc.) Also, check to see if you have an extra Return in the find pattern. This can easily happen if you copy and paste the text into the Find/Replace dialog. If you are searching for text independently of styles and fonts make sure that the Find Text Only command on the Search Method menu is checked.

## **Graphics & PostScript**

Problem: A PostScript printer doesn't print graphics as they appear on the screen.

Solution: Choose As PostScript® From the Display submenu of the Tools menu. See PostScript Limitations page 288, for details.

#### **Macros**

Problem: Recording double-clicks

Solution: Recorded macros using mouse clicks may not play back properly unless you lengthen the "Delay Until Repeat" option in the Keyboard INIT in the **Control Panel** Desk Accessory on the Apple menu.

Problem: Recording drags

**Solution**: Drags, such as selection of text or dragging the thumb of a scroll bar, are not recorded in macros. Use an alternate method such as a key equivalent.

Problem: Recording pop-up menu choosing

Solution: These are not recorded. Use a Command-key equivalent.

# **Memory Use**

#### Introduction

Nisus is a memory based word processor: while you are working on a document it is kept entirely in memory.

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This means that all editing operations are fast. Scrolling and searching are also very fast. The size of your document, however, is limited by the amount of available memory. Therefore, it is important to know how Nisus uses memory and how to free up memory when you are running low.

#### **How Nisus Uses Memory**

Each document you open requires enough memory for the document itself, plus a few kilobytes (K) of overhead for Nisus.

Every operation which goes into the undo list requires enough memory to store text or graphics that were deleted or changed, plus some overhead. Graphic changes, especially, tend to take quite a lot of memory. Operations not directly changing text or graphics, such as changing a ruler or page layout information, still require enough memory in the undo list to store the ruler or page layout information that was changed.

Every window that is open requires several kilobytes of memory. The Catalog window, in particular, may take a sizeable amount of memory if you have a large number of files listed.

Glossaries, macros and user dictionaries all take up memory, just as documents do.

## **Running Low on Memory**

When you are running low on memory one or both of the following may happen:

 Nisus will beep and display a dialog stating that the operation you just tried failed because there was not enough free memory to perform the task. If an operation fails, Nisus will attempt to free up memory. Because of this, you may be able to successfully complete the operation if you attempt it again immediately after a failure.

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2. One or more windows may "black out": their contents will become solid black. If you are running low on memory Nisus may try to free up some memory by not displaying the contents of one or more windows. You can leave the window(s) black as long as you wish in order to leave the memory free for your use. To restore the window(s) to normal, simply click in the black area.

Sometimes these may occur because memory was temporarily low, as when you make a large change to a document and that change is eventually removed from the undo list. During these temporary situations it may not be necessary to manually free up memory, but if these problems continue to occur you may have to take steps to alleviate the memory shortage.

### **Freeing Memory**

Sometimes there just isn't enough memory to perform an operation, or you may be getting black windows or failed operations frequently. In these situations it is best to try freeing up memory for Nisus to work with.

One of the best ways to free up memory is to close any open files you aren't working with, especially large files. Closing any unused windows such as the Clipboard, Catalog or Find/Replace windows will help.

Closing macro or glossary windows will not free up much memory because the files themselves stay in memory. To remove a macro or glossary file from memory it is necessary to choose New File... or New Glossary..., respectively, which will create a new, empty file in memory.

A simple and sometimes necessary measure is to reduce the size of the undo list, particularly when you have made large changes, such as changing the font of the entire document. To do this, choose **Editing...** in the **Preferences** submenu of the **File** menu and set **Maximum Number Of Undos** to a number lower than the current number of undos. This will shorten the undo list and free up memory

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by removing the oldest items in the list. To completely clear the list, without changing the maximum number of undos, press the Option key as you choose **Undo**.

When you are working with large files, it is a good idea (and sometimes a necessary measure) to break the file into two or more smaller files. Even if the file can fit in memory, it may be more convenient to edit it in several files and merge it later to print or produce an index or table of contents.

## **Other Problems**

Problem: Your window is black

#### Solution:

- 1. Click within the window. If this doesn't work, try some of the following steps. Click in the window again after each step. If the window remains black, go on to the next step.
- 2. Close all other windows including the Find/Replace dialog, the Catalog and the Spell Checking window.
- 3. Choose **Editing...** from the **Preferences** submenu of the **File** menu and set the number of undos to 1.
- 4. If you still have a very large change in the undo or redo list, you can free memory by opening the Clipboard and typing a key to erase the last change. Try clearing all clipboards.

# **Typing**

Problem: Typing is slow

Solution: You may be editing the last line of the document. Place a blank line at the end of the document.

Solution: You are probably running low on memory. Quit Nisus, choose **Control Panel** from the menu and turn off the RAM cache and then launch Nisus again. Nisus requires at least 700 K to run at reasonable speed.

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# Glossary of Terms

ASCII: Acronym for American Standard Code for Information Interchange, pronounced "ASK-ee." A code in which the numbers from 0 to 127 are used for representing text inside a computer and for transmitting text between computers or between a computer and a peripheral device.

bitmap graphics: Any graphics which are defined using dots like MacPaint type graphics.

control character: A non-printing character that controls or modifies the way information is printed or displayed. Control characters have ASCII values between 0 and 31, and are typed from the keyboard by holding down the Control key while pressing some other key. The form feed control character (Control-L) can be inserted in your document to cause a definite page break.

document: Text grouped with all its attributes and formatting by Nisus in such a way that it can be viewed, edited and printed in Nisus. Referred to as a file when saved on disk.

EPS: (Encapsulated PostScript), a format of files that has with it both a description of an image in PostScript and a bitmap version to display on screen. These files are not read by Nisus, though you can import the graphic via the Scrapbook and the Clipboard.

file: The term which refers to documents, glossaries, sets of macros, and other data on disk.

Flesch Reading Ease: A numeric estimate of the readability of a document. The estimates range from 1 to 100—100 being the easiest.

leading: Pronounced "LED-ing"; the amount of blank vertical space between the descent line of one line of text and the ascent line of the next line of single-spaced text. In early typesetting, strips of lead were placed between lines of type for spacing; hence the term leading. macro: A collection of commands which may be performed by Nisus as a group. Macros can be recorded by watching you perform some commands, or they can be written using the Nisus Macro Language. In either case macros may be viewed and edited at any time.

metacharacter: A character used to represent another character or group of characters. In the case of a single character, it usually represents a character which does not have a displayable character code.

monospace font: A font in which all characters are the same width. Examples of a monospace fonts are Courier and Monaco.

object graphics: This term in Macintosh usage means a graphic made up of arcs and fonts. In this meaning object graphics do not include bitmaps.

paragraph: Text followed and preceded by a carriage return. A paragraph can consist of a single character if it this character both preceded and followed by a carriage return. Blank lines are counted as paragraphs.

point: A unit of measurement for type; 12 points equal 1 pica, and 6 picas equal 1 inch; thus, 1 point equals approximately  $\frac{1}{72}$  inch.

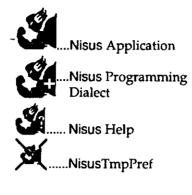
PostScript: A page description language that describes the appearance and position of graphics and text on a page.

proportional font: Any font in which different characters have different widths; thus, the space taken up by words having the same number of letters varies. For example, in the typeface used here the letter M is wider than the letter I, so that MMMMM produces a wider string than IIII. See monospace font.

set: A set is a range or a collection of characters. For example, the collection of all single digits form a set ([0-9]). The collection of all lowercase alphabetic characters forms another set ([a-z])

472 GLOSSARY OF TERMS

# Nisus Icons



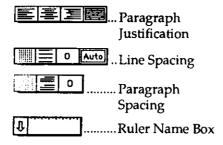
# File Type Icons

### Scroll Bar Icons

<u>I</u>	Show Info Bar
	Show Master Ruler
<u>B</u>	Show Graphics Palette
	Layout Page
1 1 2 1	Show Vertical Ruler
-	Horizontal Split Screen Bar Handle
	Vertical Split Screen Bar Handle

## **Master Ruler Icons**

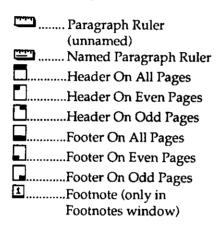
Show Headers/Footers
THE STATE OF THE S
Show Paragraph Ruler
▲▲▲ Tab Wells
Leader Bar
▲Left Tab
△ Center Tab
▲Right Tab
△ Decimal Tab
Left Tab Leader
Center Leader Tab
Right Leader Tab
☆ Decimal Leader Tab
†Left And Right Line
Wrap Indicators
+First Line Indent



#### Info Bar Icons

. <b>.</b>	Change Indicator
₽	Read Only File Indicator
	Page Number
24	Sync. Scrolling Indicator
<b>🕈</b>	Current Clipboard

## **Left Margin Icons**



# Pointer and Insertion Point Icons

Ĭ	I-beam
<b>¥</b>	Rectangular Selection I-beam
<b>*</b>	Read-Only I-beam
₹	Pointer Tool
+	Cross Hair Insertion Point (Graphics Sheets)
Ĭ	Graphics SheetsText I-beam

## **Indicator Icons**

Variable, Invisible Style
Text, Index or Table of
Contents Selection
Index As Selection
Text Box (Graphics
Sheets)
Paste Spot (Graphics
Sheets)
Graphics Pointer/Tool
Position Indicator
(Horizontal Ruler)
Hammel Graphics Pointer/Tool
Position Indicator
(Vertical Ruler)
¶··ŢGraphic Anchor (Move
with Paragraph)
Caphic Anchor (Fix to
Page)

## White Space Indicators

........... Space
→ ........ Tab
¶ ........ Paragraph

الله Line Feed

¬↓ ......... Forced Page Break

## **Layout Window Icons**

Show Layout Info Bar

Magnifying Glass

Document

Side By Side

Top Margin Limit

Bottom Margin Limit
.....Right Margin Limit

Left Margin Limit

-Paper Height

Paper Width
Text Height

☑....Text Width

.....Center Page

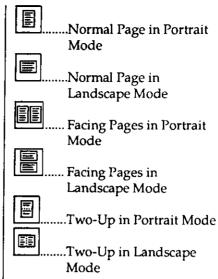
Expand Margins

.....Page Setup

....Print (show Print Driver selected in Chooser D/A)

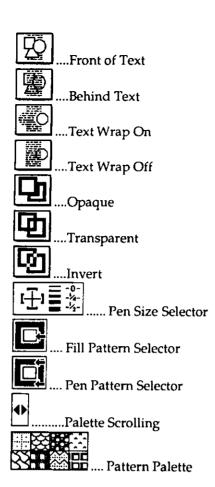
♣ ...... Top and Bottom Margin Resizing Tool

Left and Right Margin Resizing Tool



### **Graphics Icons**

<b></b>	Selection Tool
<u> </u>	Line Drawing Tool
<u> </u>	Arrow Drawing Tool
5	Bidirectional Arrow Tool
	Arc Tool
<u>T</u>	Text Tool
	Rectangle Tool
	Rounded Rectangle Tool
	Oval Tool
	Polygon Tool
$\Box$	Freehand Drawing Tool
¶	_
	Move with Paragraph
	Fix to Page



# **Catalog Icons**

~	Open File
	Nisus File
_	
_	Nisus Stationery File
<b>©</b> €	Nisus Glossary File
ØŶ.	Nisus Preferences File
<b>₽</b>	Nisus Macro File
	Text File (A file of type
	'TEXT')

٥	Other File (no specific
_	icon)
<b>B</b>	MacWrite 5.0 and Prior File
<u> </u>	. Microsoft Word File
<b>②</b>	Search List Entry
<b>4</b>	Application
$\Box$	Folder

### **Macro Window Icons**

← Backspace (Delete)
<b>%</b> Command
<b>5</b> Option
<b>企Shift</b>
→Right Arrow
←Left Arrow
↑ Up Arrow
↓Down Arrow

## Menu Key Icons

₩	Command Key
	Option Key
	Shift Key
<b>◇</b>	Control Key
<b>III</b>	Key Pad Key
F	Function Voy

# Macintosh System Icons

<b></b>	Zoom Box
	Close Box
	Resize Box

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